Empire-Building and Market-Making at the Qin Frontier: Imperial Expansion and Economic Change, 221–207 BCE

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Submitted in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy
in the Graduate School of Arts and Sciences

COLUMBIA UNIVERSITY

2020

Abstract

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This dissertation explores the relationship between empire-building and economic change during the formative process of the Qin Empire. It employs transmitted and excavated textual materials as well as archaeological evidence to reconstruct institutions and practices of surplus extraction and economic management and their evolution during the period of Qin's expansion culminating in the emergence of the first centralized bureaucratic empire in continental East Asia. I argue that the commercial expansion and the formation of markets for land, labor, and commodities during China's early imperial period (221 BCE – 220 CE) can only be understood by considering their origins in the distributive command economy of the late Warring States and imperial Qin. The study focuses on the southern frontier zone of the empire, which is exceptionally well documented in the official and private documents excavated from the Qin and Han sites along the Middle Yangzi and its tributaries.

Chapter One "Introduction" outlines historiographical approaches to the study of the relationship between empire-building and economic change, particularly the impact of imperial conquest and extraction on commercial growth. It addresses the importance of frontiers as the sites of economic innovation and change in the ancient empires. I discuss the importance of the recent archaeological discovery of legal and administrative manuscripts from the Warring States (453–221 BCE), Qin (221–206 BCE), and Han (202 BCE – 220 CE) eras for the study of the

administrative and economic organization in the early empires. The introduction also outlines the new perspectives on Qin empire-building and economic change made possible by the excavated documentary evidence.

Chapter Two "Strategies of conquest and resource extraction in the state and empire of Qin, mid-fourth to late third century BCE" explores the geographical and logistical rationales for the campaigns that brought the Qin armies to the Middle Yangzi and paved the way for further advance to the south of the river. I argue that the Qin developed its fiscal institutions as solutions to the problems of military supply and control over the conquered territories. This system of surplus extraction proved efficient in financing warfare and ensuring the central government's control over its local agents. However, it faced severe challenges as its operational costs soared in the process of territorial expansion, while the redistributive effects of the fiscal system pitted the principal against the agents. The successes and failings of the Qin model of surplus extraction, and its revision during the subsequent Western Han period profoundly influenced the approaches to economic and territorial management throughout China's imperial history.

Chapter Three "Formation of the imperial frontier: from interaction zone to centralized administration" focuses on the background and the immediate aftermath of the Qin conquest of lands to the south of Middle Yangzi, roughly coinciding with the modern province of Hunan and the southern part of Hubei Province. The chapter examines the *longue durée* of economic and political integration along the Middle Yangzi from the Late Neolithic period (third millennium BCE) to the dawn of the imperial era. This analysis sheds new light on the background of Qin imperial expansion in this region and the strategies of the "reconstruction of the South" adopted by the Qin emperors and the succeeding Han Empire. I conclude the chapter with detailed analysis of administrative organization and economic management in the Qin county of Qianling in present-

day Western Hunan, whose archive was partly recovered during the archaeological excavation of the remains of the Qin town at Liye.

Chapter Four "Between command and market: the economy of convict labor" studies the enormous system of unfree labor that incorporated a considerable portion of the Qin Empire's population and was the key instrument of the Qin command economy. The chapter offers a comparative perspective on the historical regimes of forced labor, which allows identification of economic rationales for such systems and the organizational challenges they faced. It proceeds with an analysis of the legal foundations of penal labor in Qin and the characteristics of the main groups of forced laborers before exploring the organization of the unfree labor economy in Qianling County where detailed data is available concerning the size of the convict population, their economic roles, and the management of their labor. The chapter then discusses changes in the Qin system of unfree labor, its decline after the fall of the Qin Empire, and its impact on the formation of markets for labor in early imperial China.

Chapter Five "Conquering distance: transferring goods and people in the Qin Empire" discusses the long-distance transfers of resources, goods, and people. As many other imperial states, the Qin sought to control the physical mobility of its subjects and resources by directing them into desirable channels and restricting unwanted moves. Excavated texts shed light on the previously unknown aspects of the integration of economic and humanitarian space within the empire. Although the imperial connectivity remained fragile and suffered setbacks when the physical and intellectual infrastructures of communication shrank or collapsed with the decline and fall of centralized power, the shared sphere of geographic mobility was essential for the formation of the imperial economy, society, and culture. It tended to regenerate itself after the

periods of contraction or disruption and should therefore be considered an important factor in the resilience of centripetal trends in China's political history.

Chapter Six "The state and the private economy" utilizes the materials from Qianling archive to study the relationship between the state and private economies. Although the ideologists of state-strengthening reforms in mid-fourth century BCE Qin cherished the idea that the latter should be completely subsumed under governmental dirigisme, by the times of the Qin Empire, officials recognized the autonomy of private markets and their own inability to substitute for the latter with distributive schemes. In its engagement with private economic actors, the government was guided by considerations of taxation and resource procurement; cost-reduction in the state economy; and maintenance of public order through the delineation of rights and obligations. Transformation of the state economy, its increasing exposure to private markets, and the expansion of the latter, often caused by the state demand for materials and manpower, were powerfully facilitated by the monetization of the frontier region attested in the textual and archaeological evidence.

Chapter Seven "Conclusion" summarizes the mutually constitutive relationships between empire-building and economic change in the Qin Empire; traces the development of economic and institutional changes, which become observable during the Qin imperial period, in the subsequent Han era; and formulates some general patterns of the state-economy relationship that may be of use in the comparative study of imperial economic systems.

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Scholarly Conventions

1) I omit the word for "publisher" from citations of Chinese works (e.g., *chubanshe* 出版社, *shuju* 書局) and the Chinese graphs for the titles of the following journals: *Jianghan kaogu* 江漢考古, *Kaogu* 考古, *Kaogu xuebao* 考古學報, *Lishi yanjiu* 歷史研究, *Wenwu* 文物 in the bibliography list. The Chinese graphs for the journal titles are also omitted in the footnotes.
2) I have tried to make the work accessible to non-Sinologist readers by including references to Western-language translations wherever possible.
3) Transmitted sources are cited with the number of chapter (*juan* 卷) followed by the page number, so *Shiji*, 6.236 means *juan* 6, page 236 in the *Zhonghua shuju* edition of the *Shiji* [*The Grand Scribe's Records*].
4) The titles of Chinese archaeological and editorial groups in the footnotes and in the bibliographical list are transliterated rather than translated. The Chinese graphs are provided on the first appearance.

Acknowledgements

Among many intellectual debts accumulated in the process of writing this dissertation, the first one is to my doctoral advisor, Li Feng, who provided unflagging encouragement and guidance throughout my study at Columbia University. I also had the privilege of studying with other brilliant scholars at Columbia's Department of East Asian Languages and Cultures and History Department, particularly Guo Jue, Madeleine Zelin, William Harris, Martha Howell, and Marc Van De Mieroop.

My fellow PhD students in early Chinese history, Glenda Chao, Brian Lander, and Wu Dongming, made my time at Columbia enjoyable and fruitful. Studying at Columbia presented valuable opportunities to engage with the broader community of Early China scholars that regularly convened at the Early China Seminar hosted by the university. I would also like to convey my heartfelt thanks to the department and the Graduate School of Arts and Sciences for financing my study and assistance with administrative matters.

Outside of Columbia, I greatly benefited from classes, conversations, and conferences with faculty and doctoral students at the Institute for the Study of the Ancient World, New York University (ISAW NYU). My special thanks go to the specialists in ancient Chinese archaeology and paleography, Roderick Campbell and Adam Schwartz (the latter presently serving as a professor at the Honk Kong Baptist University); and Lorenzo d'Alfonso, an archaeologist of the Bronze Age Asia Minor. During my four-months visit to the University of California, Los Angeles (UCLA), in early 2015, I enjoyed the hospitality of Lothar von Falkenhausen and Richard von Glahn who invited me to participate in graduate seminars and shared their unpublished works on

the economic history and archaeology of ancient China. Prof. von Falkenhausen's doctoral students, Shi Tao 石濤 and Wen Chenghao 溫成浩, shared their insights into the archaeology of Central and Western China. At the University of California, Santa Barbara, Anthony Barbieri-Low provided me an opportunity to present my research at the graduate seminar on Early China.

My familiarity with the all-important research on the economy and statecraft of late pre-imperial and early imperial China done by Japanese scholars is largely due to the kind invitation by Miyake Kiyoshi 宮宅潔 to visit Kyoto University in November and December 2015, where I took part in the reading group on the Qin administrative manuscripts from Liye and benefited from long conversations with Prof. Miyake and other Japanese scholars, particularly Kakinuma Yōhei 柿沼陽平 and Tsuchiguchi Fuminori 土口史記, who generously presented me their recently published works on the monetary history and territorial administration in Early China.

Much of the field work and research associated with this dissertation was carried out during the year 2016–2017 that I spent at the Center for the Study of Bamboo and Silk Manuscripts at Wuhan University thanks to the invitation by the Center's director, Chen Wei 陳偉, with funding provided by the Confucius China Studies Program. From the classes taught by Prof. Chen and his colleagues, especially He Youzu 何有祖, Liu Guosheng 劉國勝, Lu Jialiang 魯家亮, and Song Huaqiang 宋華強, I learned a great deal about the methodology of manuscript studies and the most recent discoveries of ancient Chinese documents. Conversations with Zheng Wei 鄭威, of the History Department at Wuhan University, and Guo Tao 郭濤, of the Central China Normal University, contributed a lot to my understanding of historical geography of Central Yangzi region. I am sincerely grateful to Xu Shaohua 徐少華, the prominent archaeologist of the Yangzi Basin,

for inviting me to join his field trips to the archaeological sites in Hubei Province and for bringing me in touch with archaeologists in other regions of China.

The greater part of this work was written after I had accepted the position of an assistant professor at the Heidelberg University in August 2017. I greatly appreciate the trust that Enno Giele, the Professor of Premodern Chinese History at Heidelberg University, put in my ability to fulfil my teaching responsibilities while still in process of writing up the dissertation. I hope I did not let him down. Heidelberg is one of the key European centers for the study of ancient China, and I took advantage of feedback provided by my colleagues Thies Staack and Jeanette Werning and doctoral students Sun Hui 孫慧 and Chun Fung Tong (Tang Junfeng) 唐俊峰. Regular conversations, mainly via on-line conference calls but also during our meetings in Berlin and Hamburg, with the expert on ancient Chinese legislation, Ulrich Lau, proved highly useful for my understanding of the recently published legal manuscripts from the Yuelu Academy collection.

Any academic study benefits from the discussions at conferences. Parts of the present research were presented to specialized as well as broader scholarly audiences. These meetings were too numerous to list each and every of them, yet my duty is to express profound gratitude to people who made them possible, even though not all of them can be mentioned here by name. I would like to single out Irene Soto and Jonathan Valk of ISAW NYU for organizing the brilliant conference "The Mechanics of Extraction: Comparing Principles of Taxation and Tax Compliance in the Ancient World" in September 2016.

Similarly, no academic research is possible in the absence of a quality library. My thanks go to the staff of Columbia's Avery Architectural & Fine Arts, Butler, and East Asian (Starr) Libraries; UCLA Library; Kyoto University Library; University Library and the Center for the

Study of Bamboo and Silk Manuscripts book collection at Wuhan University; and University Library and Centre for Asian and Transcultural Studies Library at Heidelberg University.

In course of writing this study, I benefited from the detailed comments on individual chapters and on the entire work by my dissertation committee members Guo Jue, Richard von Glahn, Madeleine Zelin, and especially Robin D.S. Yates who also corrected countless language mistakes and typos. Prof. Yates brought my attention to some scholarship on the Qin manuscripts that passed under my radar and generously shared his own unpublished research. I also received useful comments from Brian Lander and Yuri Pines. My former MA advisor at Peking University, Jiang Feifei 蒋非非, provided regular updates concerning the most recent publications in Chinese on the topics relevant to my research, and helped me to get hands on books and articles that were difficult to acquire in Europe and the United States.

Finally, I would like to extend special thanks to my family and friends outside the academia for their patience and support.

Chapter 1 : Introduction

1. Purpose of the study. Summary of the argument and approach

This study explores the relationship between empire-building and economic change in continental East Asia. By empire-building, I am referring to the territorial expansion of the state of Qin that started in the second half of the fourth century BCE and culminated in the conquest of all other polities within the Zhou culture sphere – something that scholars nowadays refer to as "China" – during the decade between 230 and 221 BCE and the assumption by the King of Qin of the new title, "the August Thearch" (*huangdi* 皇帝, usually translated as "emperor" in English). This was followed by the Qin imperial period (221–207 BCE) that witnessed major changes in fiscal and economic policies, relationships between the state-managed and private sectors of the economy, and the role of private markets.

The main purpose of the present research is to understand the relationship between these economic changes and the process of empire building, which includes conquest, military supply administrative organization, territorial control, infrastructure investment, and social engineering. I argue that the organizational features of the distributive, militarized command-economy that took shape in Qin during its mid-fourth century BCE state-strengthening reform were not antithetical but, in peculiar ways, conducive to the formation and expansion of private markets for land, labor, and commodities during China's early imperial period (221 BCE – 220 CE), and that this trend is already observable in imperial Qin, which is conventionally considered as an apotheosis of centralized, dirigiste resource management, excessive state extraction, and imperial overstretch.

I am far from asserting that the relationship between empire-building and the non-state networks of economic exchange, which by the Warring States period (453–221 BCE) were increasingly taking the shape of monetized private markets, was unidirectional. This study explores how the process of territorial state formation, imperial expansion, and the geographical shape of China's ancient empires were instructed by the exchange networks that developed in mainland East Asia starting from the Late Neolithic period (third millennium BCE). Empire-building and the transformation of non-state exchange networks were mutually reinforcing processes. The existing scholarship on the economic impact of ancient empires, which largely focuses on the Roman Empire and is addressed in more detail later in this Introduction, provides useful theorization on the functioning of the nexus between empire-building and market-making. I am going to argue that other approaches and perspectives, such as those of fiscal sociology, transaction cost analysis, and economic anthropology (anthropology of value), offer valuable insights for understanding economic change in the process of imperial state formation.

While this work is not a case study *stricto sensu*, much of it is devoted to the southern frontier of the Qin Empire, the territories to the south of Middle Yangzi that were conquered by the Qin in 222–221 BCE and remained an arena of military campaigns of pacification and expansion throughout the one-and-a-half decade-long imperial Qin period. Within this extensive frontier, I often focus on a specific locale, Qianling County, which was located in present-day Xiangxi 湘西 ("West of the Xiang River") region in the west of Hunan Province, China. These choices are largely dictated by the pattern of source preservation. The study of administrative and economic structures of the Qin state and empire was revolutionized by the discoveries in the course of the past 50 years or so of numerous documents on bamboo and wood dated from the late Warring States and imperial Qin period. The vast majority of these texts, which are discussed in the

"Sources" section of this Introduction, were excavated in the Middle Yangzi region, including the Qianling county archive archaeologists unearthed in the township of Liye 里耶.

This said, this study's attention to the frontier is not purely a function of its source base. I consider frontiers as crucial sites of economic change in ancient empires, particularly the changes associated with commercial expansion and market-making. They were also the essential sites of empire-building where new administrative methods were tested, new identities formed, ideas about imperial territoriality took shape, and further conquest campaigns gained momentum. Moreover, the porous nature of imperial territoriality meant "frontier situations" were not limited to the geographical fringes of the empires but were distributed through much of their territories outside the core regions. The imperial frontier was not merely a spatial but also a social and economic phenomenon. As such, it is an appropriate site for the exploration of the economic aspects of empire-building, which is simultaneously case-specific and potentially conducive to generalizations.

2. Empire and the economy

The impact of ancient empires on the economy, particularly, on trade and markets, remains a part of a broader debate about the nature of ancient economies and states. Classical scholarship with the focus on the Mediterranean empire of Rome (to a lesser degree, pre-Roman imperial economies in the Hellenistic period) is at the spearhead of this research in terms of number of publications, quality of data, and sophistication of argument. Debates about the relationship between various modalities of economic exchange, degree of market integration, and factors of economic growth, initially incited by the formalist-substantivist (also referred to as modernist-

primitivist) controversies, have evolved considerably since the time of Karl Polanyi (1886–1964) and Moses Finley (1912–1986), but have never been conclusively resolved.[1]

While few scholars nowadays argue that markets were nonexistent or unimportant in the ancient economies, the opposite view that the Roman Empire at its height was an integrated, self-regulating market economy where prices for major traded goods (grain, wine, oil) followed similar patterns over long periods of time, while strongly advocated by some scholars, has recently also been increasingly exposed to criticism.[2] Instead, more attention is paid to the role of political economy, social structures, and logistical constraint in shaping trade networks and production systems in what some scholars define as "tributary empires" – extensive polities based on the conquest of wide agrarian domains and the taxation of peasant surplus production. In these empires, tax extraction and politically-driven concentration of spending power were key factors in forcing

[1] Karl Polanyi (1886–1964), the founding father of the "primitivist/substantivist" camp, stated that "the rise of the market as a ruling force in the economy can be traced by noting the extent to which land and food were mobilized through exchange, and labor was turned into a commodity free to be purchased in the market," conditions that, in his opinion, never applied in the ancient world. See Polanyi, "The Economy as Instituted Process," in Polanyi and Conrad Arensberg, eds., *Trade and Market in the Early Empires: Economies in History in Theory* (Chicago: Regnery, 1957), 243-270. Critics of the primitivist views are too many to be listed here. Economist and economic historian Morris Silver dedicated a book to refuting Polanyi's argument and quoting many ancient sources for the evidence of price formation instructed by supply and demand; private individuals independently trading in grain and other commodities; commercial loans; and private markets for labor and land. See Silver, *Economic Structures of Antiquity* (Westport and London: Greenwood Press, 1995).

[2] Peter Temin, an economic historian of the Roman Empire, is one of the most consistent proponents of the view that the early Roman Empire was an advanced agrarian market economy with local markets well connected throughout the Mediterranean. Although he recognizes that slow transportation precluded efficient coordination of prices across the empire, Temin nevertheless insists that Rome emerged as the center of the integrated Mediterranean economy where grain prices were set that affected grain prices, prices of other goods, wages, migration flows, and land use elsewhere in the empire. See Temin, "A Market Economy in the Early Roman Empire," *The Journal of Roman Studies* 91 (2001): 169-181; Temin, "The Economy of the Early Roman Empire," *Journal of Economic Perspectives* 20.1 (2006): 133-151; David Kessler and Temin, "Money and Prices in the Early Roman Empire," in William Harris, ed., *The Monetary Systems of the Greeks and Romans* (Oxford: Oxford University Press, 2008), 137-159. This representation of the Roman economy was criticized for the lack of price data to support the market integration thesis and ignoring the fundamental realities of pre-modern logistics such as enormous difference in the cost of seaborne and overland transportation. See Gilles Bransbourg, "Rome and the Economic Integration of Empire," Institute for the Study of the Ancient World (ISAW) Papers 3 (2012), http://dlib.nyu.edu/awdl/isaw/isaw-papers/3/.

provinces to enter markets and in directing and structuring trade flows.[3] Although not necessarily applicable to other ancient imperial economies, models developed by the historians working on the Mediterranean materials provide useful reference for scholars in other regions of the world.

In general terms, the impacts of empires on underlying economies can be subsumed under the three broad categories: reduction of transaction costs, particularly through maintaining public order and provisioning of legal mechanisms for resolving disputes; stimulation of production and exchange through state demand; and diffusion of technology.[4]

Transaction costs are the costs of making economic transactions, particularly in the market context. This is a residual category in neoclassical economics, which accounts for the "failures" of markets due to their participants' limited and uneven access to information. In contrast, in the new institutional economics (NIE), it becomes the key analytical category as transaction costs are recognized as a structural feature of market systems. NIE studies the role of institutions, defined as background constraint, or "rules of the game," both formal (e.g. laws, property rights) and informal (social norms and conventions), in shaping economic exchanges in a given society by reducing or increasing transaction costs.[5]

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[3] On "tributary empires", see Peter Fibiger Bang and C.A. Bayly, "Tributary Empires – Towards a Global and Comparative History," in Bang and Bayly, eds., *Tributary Empires in Global History*, 1-17. For the military and political nature of market-making in the pre-modern empires, see Bang, *The Roman Bazaar: A Comparative Study of Trade and Markets in a Tributary Empire* (Cambridge: Cambridge University Press, 2008), 47-58.

[4] In his analysis of what he calls "the first empires of domination," Michael Mann identifies five aspects of "compulsory cooperation," which, for him, is synonymous with the immediate economic impact of ancient empires: military pacification, military multiplier (consumption needs of the army as a boost to demand and, consequently, to production), authority and economic value (state-sponsored system of value equation, manifest in coinage, measures, weights, etc.), the intensification of labor, coerced diffusion. See Mann, *The Sources of Social Power*, vol. 1: *A History of Power from the Beginning to A.D. 1760* (Cambridge: Cambridge University Press, 1986), 148-155. Insightful as this classification may be, its five aspects contain some overlaps, e.g. intensification of labor may be considered one manifestation of military multiplier. Moreover, all of Mann's "aspects" fall under one of the three types of economic impact of imperial states proposed here, which also include features not mentioned by Mann or addressed in his study separately.

[5] Economist Douglass North (1920–2015) was one of the founders of new institutional economy who pioneered the study of economic history in terms of transaction costs, property rights, and institutions. See, for example, North, "A Framework for Analyzing the State in Economic History," *Explorations in Economic History* 16 (1979): 249-259;

In the most immediate sense, empires improved security to a certain degree by reducing military threat (what Michael Mann calls "military pacification"). While many empires, including the Qin, deliberately categorized some of their territories as zones of insecurity, even there some policing was conducted, which by itself, of course, does not mean that security improved.[6] Second, almost without exception, empires invested in transportation and communication infrastructure, which were crucial for the military and administrative control and reduced information and shipment costs. In the longer run, some scholars have argued, such investment also increased uniformity of consumption tastes, leading to expansion of markets and economies of scale for "imperial goods," which advanced the division of labor and production efficiency.[7]

North, *Institutions, Institutional Change, and Economic Performance* (Cambridge: Cambridge University Press, 1990). For an application of the transaction costs approach to the study of ancient economies, see, for example, Bruce Frier and Dennis Kehoe, "Law and Economic Institutions," in Walter Scheidel, Ian Morris, and Richard Saller, eds., *The Cambridge Economic History of the Greco-Roman World* (Cambridge: Cambridge University Press, 2007), 113-143; Dennis Kehoe, David Ratzan, and Uri Yiftach, eds., *Law and Transaction Costs in the Ancient Economy* (Ann Arbor: University of Michigan Press, 2015).

[6] Peter Fibiger Bang is critical about the quality of protection provided by the Roman imperial state to the merchants and argues that more efficient protection continued to be provided by local communities who benefited from trade. He emphasizes predation activities of empires as their key economic contribution rather than pacification and protection. See Bang, *The Roman Bazaar*, 232-238; Bang, "Predation," in Walter Scheidel, ed., *The Cambridge Companion to the Roman Economy* (Cambridge: Cambridge University Press, 2012), 197-217.

[7] For the impact of imperial investment in communication infrastructure on the consumption in different regions of the Roman Empire, see Ian Haynes, "Britain's First Information Revolution. The Roman Army and the Transformation of Economic Life," in Paul Erdkamp, ed., *The Roman Army and the Economy* (Amsterdam: J.C. Gieben, 2002), 111-126; Bruce Hitchner, "'The Advantages of Wealth and Luxury': The Case for Economic Growth in the Roman Empire," in J.G. Manning and Ian Morris, eds., *The Ancient Economy: Evidence and Models* (Stanford: Stanford University Press, 2005), 207-222; and Kevin Greene, "Learning to Consume: Consumption and Consumerism in the Roman Empire," *Journal of Roman Archaeology* 21 (2008): 64-82. Of course, empire was not a prerequisite for radical improvements in the efficiency of communication and subsequent uniformization of consumption behavior over large distances. The same effects could be achieved through non-centralized socio-political networks such as diasporas. For the case of Greek colonization in Western Mediterranean, see Justin Walsh, *Consumerism in the Ancient World: Imports and Identity Construction* (New York and London: Routledge, 2014). Yet, relatively high degree of uniformity of material culture across vast territories achieved under the powerful and long-lasting empires such as those of Rome or the Han cannot be neglected as an important economic impact of an imperial state, even though it may be limited to the centers of strong state presence such as cities, military camps and their surroundings, and residences of the elite.

Third, it is argued that empires reduced transaction costs by enforcing property rights through legal system. The argument is finding support among legal historians who see the judicial system as the main institution for reducing transaction costs.[8] While it has been demonstrated that in many ancient societies, written laws fulfilled political rather than economic function,[9] and while local norms remained instrumental in solving economic disputes, it is also absurd to claim that the enormous body of property law in the Roman and early imperial Chinese legislation can be written-off as an act of political propaganda, especially as the practical use of these laws is confirmed by documentary record.[10]

Fourth, empires introduced or projected systems of value equivalencies ("authority and economic value," in Mann's terminology) across their domains. Most important was uniformization of currency units.[11] In the parts of the world familiar with coined money, this was

[8] See, for example, Giuseppe Dari-Mattiacci, "The Economic Perspective," in Kehoe et al., eds., *Law and Transaction Costs*, 273-290.

[9] Scholars of Mesopotamian law have long pointed out that the most famous piece of Babylonian legislation, the Code of Hammurabi, had no influence on Mesopotamian jural activity and was mainly designed "to portray Babylonian domination of conquered territory as quintessentially just." See Norman Yoffee, *Myths of the Archaic State: Evolution of the Earliest Cities, States, and Civilizations* (Cambridge: Cambridge University Press, 2004), 104-109.

[10] Earlier claims that insofar as the ancient Chinese law was unfamiliar with the concept of private property, it also did not protect property rights have been invalidated by the large body of recently excavated legal rules that regulated transfers of property rights (sales, inheritance, gift) in land, slaves, and movable property, property loss or damage reimbursement, as well as debt relations among private individuals. See, for example, Liu Xinning 劉欣寧, *You Zhangjiashan Han jian* Ernian lüling *lun Han chu de jicheng zhidu* 由張家山漢簡《二年律令》論漢初的繼承制度 [*A study of the inheritance regime at the beginning of the Han period based on the "Statutes and ordinances of the second year" on bamboo slips from Zhangjiashan*] (Taipei: Guoli Taiwan daxue, 2007); Xie Quanfa 謝全發, "Han dai zhaifa yanjiu" 漢代債法研究 [A study of debt law in the Han era], Ph.D. dissertation, South-Western University of Political Science and Law 西南政法大學, 2007; Hou Chunping 侯春平, "Qin Han caichan sunhai peichang falü zhidu kaozheng" 秦漢財產損害賠償法律制度考證 [A study of legal regime of property damage reimbursement in Qin and Han], *Lantai shijie* 蘭台世界 27 (2014): 22-23.

[11] But notice that some empires, for fiscal as well as strategic reasons, deliberately maintained special currency zones in some regions, as the Roman emperors did in Egypt and the Song Empire in Sichuan and some frontier regions. For Egypt, see Angelo Geissen, "The Coinage of Roman Egypt," in William Metcalf, ed., *The Oxford Handbook of Greek and Roman Coinage* (Oxford: Oxford University Press, 2012), 561-583; for the iron-currency zones in the Northern Song Empire (960–1127), see von Glahn, *The Economic History of China*, 233; and Michael McGrath, "The Reigns of Jen-Tsung (1022–1063) and Ying-Tsung (1063–1067)," in Twitchett and Fairbank, eds., *The Cambridge History*

accompanied by the geographical and social expansion of the monetary economy.[12] Imperial governments also attempted, with varying degrees of success, to enforce standard weights and measures across their domains.[13] These measures sometimes involved pronounced ideological motivation: the First Emperor of Qin celebrated unification of the script, measures, and weights as physical manifestation of the new political order.[14] Yet some degree of uniformity in the units of measurement almost certainly facilitated the operation of the state economy, its engagement with the private sector, and arguably also trade between regions that previously used different units of measurement.

The tax-based *state demand* was singled out as a major factor of economic growth in the pre-modern world from as early as the Bronze Age.[15] For imperial Rome, Keith Hopkins

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of China. Twitchett and Paul Jakov Smith, eds., Vol. 5, Part One: *The Sung Dynasty and Its Precursors, 907–1279* (Cambridge: Cambridge University Press, 2009), 279-346, esp. 327-328.

[12] For the Roman Empire, some scholars estimated the monetization ratio at a bit less than one half of GNP at the end of the Augustan period as the output of the central mint was far greater than the production of any previous issuing authority. Issue of smaller denominations made money useful for all kinds of transactions, and use of coinage became ubiquitous even in rural areas. See Raymond Goldsmith, "An Estimate of the Size and Structure of the National Product of the Early Roman Empire," *Review of Income and Wealth* 30 (1984): 263-288; Luuk De Ligt, "Demand, Supply, Distribution: The Roman Peasantry between Town and Countryside, 1," *Münstersche Beträge zur antiken Handelsgeschichte* 9 (1990): 24-56; Elio Lo Cascio, "The Early Roman Empire: The State and the Economy," in Scheidel et al., eds., *The Cambridge Economic History of the Greco-Roman World*, 619-647. Similar dynamics is observed in early imperial China, and the Qin part of the story will be addressed in more detail in the present study.

[13] For the Athenian attempt in 420-s BCE to impose the use of Athens' coinage, weights, and measures among its allies, see Colin Kraay, *Greek Coins and History: Some Current Problems* (London: Methuen, 1969), 53-63; for the Roman Empire, see Neville Morley, "Distribution," in Scheidel et al., eds., *The Cambridge Economic History of the Greco-Roman World*, 570-591, esp. 588.

[14] For this observation, see Charles Sanft, *Communication and Cooperation in Early Imperial China: Publicizing the Qin Dynasty* (Albany: State University of New York Press, 2014), 57-76.

[15] The function of state demand as an economic stimulus is captured in Mann's categories of "military multiplier" and "intensification of labor", see Mann, *The Sources of Social Power*, vol. 1, 148-155. David Warburton, a scholar of Bronze Age Near East economies, recently emphasized that "'tax-based demand' did not skim off existing income or wealth…, but rather the state collected or made things which would not otherwise have existed." See Warburton, *The Fundamentals of Economics: Lessons from the Bronze Age Near East* (Neuchâtel: Recherches et Publications, 2016), 8-9.

generalized the impact of state extraction on the expansion of markets and economic growth as the "tax-and-trade" model. He noticed that in the Roman Empire, consumption was concentrated in the capital and, more broadly, in Italy where the wealthiest elite had their residences and where regular food distributions to citizens required enormous shipments of grain and other foodstuffs; and at the frontiers, where most of the army was concentrated. Money also was amassed at the capital, where taxes were received by the state treasury, and at the military frontier where over 70% of government's spending was directed to pay legionary wages and other military expenses.[16] Provinces had to earn money to pay their taxes. They did so by increasing the output of surpluses that were then shipped and sold in Italy and in the army camps, where the wealthiest consumers were concentrated. As the result, massive Italian exports of wine and manufactures to provinces during the last two centuries BCE were replaced by imports to Italy from provinces where it was cheaper to produce. Imperial demand and extraction stimulated production in provinces, growth of trade, and economic specialization among the empire's regions.[17]

Other scholars modified this model to emphasize the conditional nature of markets in pre-modern empires and their dependence on imperial predation. Peter Fibiger Bang argued that

[16] Scholars have offered a number of estimates of Roman military spending, and figures understandably vary for different periods. One of the oft-quoted estimates belongs to Richard Duncan-Jones who suggested military spending between 72% and 77% of the imperial budget around 150 CE. See Duncan-Jones, *Money and Government in the Roman Empire* (Cambridge: Cambridge University Press, 1994), 45-46. See also Scheidel, "State Revenue and Expenditure in the Han and Roman Empires," in Scheidel, ed., *State Power in Ancient China and Rome* (Oxford: Oxford University Press, 2015), 150-180.

[17] Keith Hopkins, "Taxes and Trade in the Roman Empire (200 B.C. – A.D. 400)," *The Journal of Roman Studies* 70 (1980): 101-125. While the "tax-and-trade" theory was criticized for oversimplification of the economic realities of the Mediterranean world over the span of six hundred years, it is still recognized as a useful model for explaining the impact of fiscal extraction and state consumption of the provincial economies. For recent reference to the model, see, for example, Lo Cascio, "The Early Roman Empire: The State and the Economy," 646-647, who, however, emphasizes that fundamental changes in the Roman economy and the role of the state as administrator of flow of goods after the Antonine Plague (165–180 CE) made economic integration increasingly dissociated from the flows of trade; and Scheidel, "Approaching the Roman Economy," in Scheidel, ed., *The Cambridge Companion to the Roman Economy*, 1-21.

economic unity of pre-modern empires was based not on inter-connected markets but on tribute extraction by the state, supported by elite coalitions, and pointed out the lack of dichotomy between the trade and state redistribution: trade was a part of the tributary process aimed at "turning the extracted tribute into flexible resources that could be disposed of in other contexts." As a result, agrarian/tributary empires contributed to economic growth, but in a distinct way. There was little room for regional specialization driven by trade between regions; instead, tax-paying provinces increased output of peasant surplus production. Intensification of labor was often achieved through violent means such as slavery.[18]

If there was a political-geographic zone where state demand, military violence, and redistributive fiscal mechanics were most saliently in play to transform local economies, this was the imperial frontier regions. The arrival of large masses of non-producers intensified claims on the local resources, while the need for large-scale imports, at least at the initial stages of occupation, posed organizational challenges.[19] Although it was argued that the government played an important role in direct administration of military supplies, in a longer-term perspective the state tended to relegate the task to merchants.[20] As the result, imperial frontiers provided an important

[18] See Bang, *Roman Bazaar*, 113-127; Bang and Bayly, "Tributary Empires," in Bang and Bayly, eds., *Tributary Empires in Global History*, 1-17; Bang, "Predation," in Scheidel, ed., *The Cambridge Companion to the Roman Economy*, 197-217.

[19] See, for example, Hugh Elton, *Frontiers of the Roman Empire* (London: Batsford, 1996), 77-95.

[20] For the argument that the state played the central role in supplying the Roman frontier armies through redistribution of in-kind tax revenues and emergency levies, see Paul Erdkamp, "The Corn Supply of the Roman Armies during the Principate (27 BC – 235 AD)," in Erdkamp, ed., *The Roman Army and the Economy*, 47-69; see also his "Introduction" in the same volume, 5-16. Other scholars recognize the importance of administered military supply in certain periods of the imperial Roman history when contraction of the economy in general and commerce in particular rendered private markets unreliable for this paramount task. See, for example, Lo Cascio, "The Early Roman Empire: The State and the Economy," 642-646. For the importance of merchants in organizing shipment of goods to the frontier garrisons, see, for example, C.R. Whittaker, *Rome and Its Frontiers: The Dynamics of Empire* (London and New York: Routledge, 2004), 1-27. For the key role of private commerce in supplying the military frontier of the Chinese empires in the Song (960–1279) and Ming (1368–1640) eras, and the financial policies aimed to entice merchants to participate in organizing exports from the inner regions of the empire to the frontier, see von Glahn, *The Economic History of*

setting for productive cooperation between the state and private commerce. In fact, in some contexts, commercial integration of the frontier, of which military supply was one of the key mechanisms, came to be considered as the central element of political integration.[21]

Finally, improved communications and government policy to introduce new production techniques and tools contributed to the *diffusion of technology and applied knowledge*.[22] While new technological developments may have considerably increased productivity of working process in antiquity,[23] much of the growth was likely due to the diffusion of already long-known techniques and tools.[24] As in the case of the spread of consumption preferences, political unification and pacification were not necessary preconditions for technology diffusion to take place. Yet the case can often be made for the linkage between the arrival of empires and introduction of new production techniques and tools to areas previously unfamiliar with them.

China, 229-232; and Peter Perdue, *China Marches West: The Qing Conquest of Central Eurasia* (Cambridge, MA, and London: Harvard University Press, 2005), 52-74.

[21] For a detailed discussion of the linkage between frontier security, army supply, and private commerce in the Manchu Qing expansion into Central Asia in the eighteenth century, see Perdue, *China Marches West*, 378-406.

[22] For the diffusion of technology from the more advanced Eastern Mediterranean to the western regions of the Roman Empire, see, for example, Philip Kay, *Rome's Economic Revolution* (Oxford: Oxford University Press, 2014), 324; Lo Cascio, "The Early Roman Empire: The State and the Economy," 625; Hitchner, "'The Advantages of Wealth and Luxury'," 214-216. The Qin and Han Empires made considerable investment in production and dissemination of iron tools.

[23] The view that ancient production technology was intrinsically stagnant and never implemented available technical inventions has been revised in recent decades as scholars increasingly recognized considerable technological innovation and interdependency of technological and economic developments, particularly in the Greek and Roman world. See, for example, Kenneth White, *Greek and Roman Technology* (London: Thames and Hudson, 1984); and Helmuth Schneider, "Technology," in Scheidel et al., eds., *The Cambridge Economic History of the Greco-Roman World*, 144-171.

[24] For example, one of the purportedly innovative sowing techniques propagated by the imperial government in mid-Western Han period was shown to have been already known and described more than hundred years earlier. See Hsu Cho-yun, *Han Agriculture: The Formation of Early Chinese Agrarian Economy (206 B.C. – A.D. 220)* (Seattle: University of Washington Press, 1980), 111-116; and Francesca Bray, "Agricultural Technology and Agrarian Change in Han China," *Early China* 5 (1979-80): 3-13, esp. 5-6.

In his introduction to *The Cambridge Companion to the Roman Economy*, Walter Scheidel warns against regarding the market-centered narrative, which emphasizes the role of empires in reducing transaction costs, and the extraction-centered narrative, according to which the "economy waxed and waned along with the power of the imperial state," as mutually exclusive causative interpretations.[25] Redistributive fiscal mechanisms were central to economic integration as they instructed the flows of money, goods, and, in a less direct way, also the flows of labor. However, attempts to directly administer these flows were usually short-lived, and private markets were instrumental in mobilizing, converting, and transferring extracted resources. Moreover, the impact of empire on economic integration was not limited to the regions situated along the major axes of long-distance trade that supplied imperial consumers. Even in isolated areas, "migrations and access to the same monetary system and broader cash pool would tend to cap divergences within a single overall continuous price structure."[26]

Imperial economies of scale and the capacity of empires to integrate strategic, political, and social considerations in economic decision-making were the key mechanisms by which the direct economic impacts of empires were delivered. The state was the single largest consumer and investor who, moreover, had the ability to abruptly, if for relatively short periods of time, reduce the spending power of other actors through confiscation or destruction of private wealth.[27] Imperial governments also had economic horizons different from those of private actors, which allowed

[25] Scheidel, "Approaching the Roman Economy," 8-9.

[26] Bransbourg, "Rome and the Economic Integration of Empire".

[27] For the Roman Empire, Peter Bang observes that there was no absolute distinction between the private fortunes of the elite and the imperial state, as the coercive apparatus of the empire was routinely applied for redistribution of the elite's wealth. See Bang, *Roman Bazaar*, 100.

them to internalize externalities of some economic transactions that would otherwise make these transactions impossible at all, or at least unlikely on a large scale that was actually achieved.[28]

The combination of these two factors also allowed for a relatively brief but overwhelming concentration of resources aimed at attaining social, economic, or strategic objectives for the imperial government that had a potential of translating into major economic changes in the longer term.[29]

As the present study will argue, these dynamics are crucial for understanding the processes of market-making in the empires that operated large-scale, redistributive state economies. Analysis of priorities and capacities of the state as an economic actor is prerequisite for appreciating the interplay between the command and market-oriented modes of economic policy, and the outcomes of the imperial government's attempts to exert direct control of populations and resources. For the purpose of the present study, such an analysis also contributes to countering the traditional, dramatizing image of the Qin Empire as a violent historical aberration, a brief period of excessive state intervention in all domains of social, economic, and cultural life of its populace ultimately "corrected" by the rulers of the following Han Empire, with a more balanced, processual representation of the Qin empire-building as a dynamic array of organizational solutions to the challenges of territorial and population control, fiscal extraction, military and administrative logistics and communication, etc. This longer-term and comparative view of the Qin imperial project, which is one of the key premises of this dissertation, has recently been supported by the

[28] The oft-quoted example from ancient history is the Roman grain *cura annonae*, the government-subsidized grain supply to the poor in the city of Rome.

[29] One possible example is the brief, concentrated military effort to punish a rebellious province and to restore the local society to the conditions that it was able "to run itself with a minimum of intervention from the imperial authorities," which effectively allowed the state to economize on the administrative costs in a longer run. See Bang, "Lord of All the World – The State, Heterogenous Power and Hegemony in the Roman and Mughal Empires," in Bang and Bayly, eds., *Tributary Empires in Global History*, 171-192.

excavated textual evidence as well as from the perspective of revisionist chronology of the Qin empire-building.

3. Defining Qin imperialism: towards a long-term view of the Qin empire-building

According to the conventional chronology, the Qin Empire lasted for less than fifteen years (221–207 BCE), yet it exerted enormous impact on the political and administrative organization, legal system, and, as is now becoming increasingly clear, economic policies of subsequent imperial states in East Asia.[30] The contrast between the short life of the first empire, which barely outlasted its charismatic founder, and the longevity of its legacy already impressed the following generation of political thinkers.[31] Even nowadays, it inspires academic debates about the Qin Empire, which seems to present an ideal case of a systemic collapse precipitated by the cohesion of socio-political organization.[32]

[30] The influence of Qin institutions on the succeeding Han Empire was already recognized by contemporaries, as exemplified by the statement in the official history of the Western Han, *The Documents of Han* (*Hanshu* 漢書): "When the Han rose, they followed the establishments of the Qin" (*Han xing, yin Qin zhi du* 漢興、因秦制度). See *Hanshu* 漢書 [*The Documents of Han*], 12 vols. (Beijing: Zhonghua shuju, 1962), 28A.1543. This phrase was latter refined into the formula "the Han inherited the Qin institutions" (*Han cheng Qin zhi* 漢承秦制), which is still used by modern scholars, particularly in China, to characterize fundamental political, legal, administrative and other continuities during the early imperial era. For the earliest use of this formula, see *Hou Han shu* 後漢書 [*The Documents of the Latter Han*], 12 vols. (Beijing: Zhonghua shuju, 1965), 40A.1323.

[31] Particularly influential was the analysis by the Western Han statesman and political thinker Jia Yi 賈誼 (200–169 BCE) titled *The Discourse on the Faults of Qin* (*guo Qin lun* 過秦論). It is included in the "Basic Annals of the First Emperor" (*Qin Shihuang benji* 秦始皇本紀) chapter of the *Shiji*. See *Shiji* 史記 [*The Grand Scribe's Records*], 10 vols. (Beijing: Zhonghua shuju, 2006), 6.276-285. A survey of Jia Yi's life and career can be found in Charles Sanft, "Rule: A Study of Jia Yi's *Xin shu*," Ph.D. dissertation, Westfälischen Wilhelms-Universität zu Münster (Westfalen), 2005.

[32] For a recent insightful analysis of the collapse of Qin from a systemic perspective, see Gideon Shelach, "Collapse or transformation? Anthropological and archaeological perspectives on the fall of Qin," in Yuri Pines, Gideon Shelach, Lothar von Falkenhausen, and Robin D.S. Yates, eds., *Birth of an Empire: The State of Qin Revisited* (Berkeley, Los Angeles, and London: University of California Press, 2014), 113-138. This study builds upon an estimate of labor investment in the public works to argue that the Qin rulers overexerted the empire's resources. Notice, however, that other scholars came up with very different figures for labor expenditure in some of the construction projects mentioned

Yet the historiographic image of relentlessly ambitious, overcentralized, violent, and consequently unsustainable empire, a kind of historical prodigy with the messianic figure of the August Thearch (better known in the English-language scholarship as the First Emperor of Qin, *Qin shi huangdi* 秦始皇帝, r. 246–210 BCE, of which 221–210 BCE as an emperor) at the helm, may well be a product of extraordinarily efficient propaganda best represented by the Qin stele inscriptions that celebrated "unification" of All-Under-Heaven.[33] These texts were copied into the would-be first official history of imperial China, *The Grand Scribe's Records* (*Shiji* 史記, completed ca. 94 BCE) by Sima Tan 司馬談 (ca. 165–110 BCE) and Sima Qian 司馬遷 (ca. 145/135–86 BCE). The "unification event" of 221 BCE constitutes the pivot of Simas' narrative about the First Emperor, which, according to some scholars, takes the central position in the structure of the entire work.[34]

Excavated contemporary documents, on the contrary, do not single out the twenty-sixth reign year of the Qin King Zheng 政 (corresponding to 221 BCE) as a momentous turning point in political history. A private chronicle excavated from the tomb of a Qin clerk was drafted in or soon after 217 BCE. It records some key events of this individual's life as well as important political events, such as the Qin attack on Handan 邯鄲, the capital of the rival state of Zhao 趙,

by Shelach. See Sunny Auyang, *The Dragon and the Eagle: The Rise and Fall of The Chinese and Roman Empires* (London and New York: Routledge, 2015), 317-320.

[33] For the study of stele inscriptions, see Martin Kern, *The Stele Inscriptions of Ch'in Shih-huang: Text and Ritual in Early Chinese Imperial Representation* (New Haven: American Oriental Society, 2000). For the messianic ideology of these texts, see Yuri Pines, "From Historical Evolution to the End of History: Past, Present, and Future from Shang Yang to the First Emperor," in Paul Goldin, ed., *Dao Companion to the Philosophy of Han Fei* (Berlin: Springer, 2012), 25-45; and Pines, "The Messianic Emperor: A New Look at Qin's Place in China's History," in *Birth of an Empire*, 258-279.

[34] See Hans van Ess, "Emperor Wu of the Han and the First August Emperor of Qin in Sima Qian's *Shiji*," in *Birth of an Empire*, 239-257.

in 257 BCE, and the death of the ruler of another contender, the state of Han 韓, in 226 BCE, but makes no single entry for 221 BCE.[35] Another private chronicle excavated from a Western Han tomb records the events starting from the reign of the Qin king Zhaoxiang 昭襄王 (306–251 BCE) through the reign of the Western Han Emperor Wen 文帝 (Liu Heng 劉恆, r. 180–157 BCE).[36] Neither the change in the Qin royal title in 221 BCE nor the reign of the First Qin Emperor appear to have been treated as a critical historical watershed at the beginning of the Western Han period.[37]

For many Qin officials and subjects, fundamental administrative, legal, and everyday life continuities probably by far outweighed manifestations of the novel political order. Local functionaries such as the owner of the above-mentioned private chronicle certainly noticed the extensive revision of the vocabulary prescribed for official written communication.[38] Both

[35] This private chronicle was excavated, along with numerous other manuscripts, from tomb no. 11 at Shuihudi, in present-day Hubei Province, which was the location of the Nan ("Southern") Commandery (*nan jun* 南郡), the Qin's key bulwark on the Yangzi River in the 3rd century BCE. The tomb belonged to a local official named Xi 喜. See *Shuihudi Qin mu zhujian zhengli xiaozu* 睡虎地秦墓整理小組, ed., *Shuihudi Qin mu zhujian* 睡虎地秦墓竹簡 [*The documents on bamboo slips from the Qin tomb at Shuihudi*] (Beijing: Wenwu, 1990), 1-10.

[36] This chronicle was very recently excavated along with other manuscripts from a Western Han tomb at Hujia caochang 胡家草場, Hubei Province. For a mass media report on this find and very brief information about the chronicle, see Pan Liwei 潘力維, "Hubei Jingzhou chutu zhengui Xi-Han jiandu he Zhanguo Chu jian jiju xueshu jiazhi" 湖北荊州出土珍貴西漢簡牘和戰國楚簡極具學術價值 [The precious Western Han and Warring States Chu manuscripts excavated at Jingzhou, Hubei Province, have an extremely high scholarly value], *Zhongguo xinwen wang* 中國新聞網 [China News] https://www.chinanews.com/cul/2019/05-06/8829027.shtml, accessed May 17, 2019.

[37] That the Qin unification event of 221 BCE was exaggerated in the Han historiography, and that some elements of the unification narrative may be a Han fiction rather than an accurate account of the actual events had already been pointed out by Gu Jiegang 顧頡剛 (1893–1980) and extensively elaborated upon in the post-war Japanese scholarship. For a recent summary, see Tsuruma Kazuyuki 鶴間和幸, *Shin teikoku no keisei to chiiki* 秦帝國の形成と地域 [*Formation and territory of the Qin Empire*] (Tokyo: Kyūko shoin, 2013), 546-548.

[38] This measure has long been known due to the *Shiji* account, which quotes a memorandum submitted by the top dignitaries of the Qin court to King Zheng in 221 BCE. See *Shiji*, 6.236. A word list excavated from the remains of the Qin county town at Liye, in the present-day Hunan Province, attests to the dissemination of new vocabulary throughout the empire, see Chen Wei 陳偉, ed., *Liye Qin jiandu jiaoshi* 里耶秦簡牘校釋 [*Annotated edition of the Qin documents on wooden slips from Liye*], vol. 1 (Wuhan: Wuhan daxue, 2012), 155-159, tablet 8-461. For a study of this document, which was initially numbered 8-455, see, for example, You Yifei 游逸飛, "Liye Qin jian 8-455 hao mufang xuanshi" 里耶秦簡 8-455 號木方選釋 [Selected annotations to the square wooden tabet number 8-455 from among the Qin documents from Liye], *Jianbo* 簡帛 6 (2011): 87-104.

officials and some private individuals likely paid attention to the Qin units of weight and measure that were distributed across the recently conquered territories.[39] However, in spite of the imperial proclamations, old fortifications were maintained between the "old" Qin domains and the newly conquered territories within the purportedly unified realm. Authorities considered the "new territories" as a source of threat and periodic hostile incursions. Qin administration in the eastern and southern parts of the empire was intrinsically unstable and subject to regular reshufflings that leave an impression of desperate efforts to find an efficient configuration for administrative and military deployment.

A longer-term perspective on the Qin imperial project captures some crucial factors in its lasting impact as well as in its ultimate fragility. Scholars have already started to reconsider the accepted chronology of the empire.[40] Robin D.S. Yates and Takamura Takeyuki 高村武幸 argued that the Qin essentially became an empire as early as 316 BCE when its armies crossed the Qinling 秦嶺 Mountains and conquered the Chengdu Plain in Sichuan.[41] It can be argued that other

[39] For a discussion of the impact of the Qin "unification of weights and measures" at the local level, see Zhuang Xiaoxia 莊小霞, "Liye Qin jian suojian Qin tongyi hengzhi xinzheng" 里耶秦簡所見秦統一衡制新證 [New evidence for the Qin unification of measure system in the Qin documents from Liye], *Dongfang luntan* 東方論壇 6 (2016): 9-14.

[40] Here, I intentionally avoid capitalizing the word "empire," to distinguish my use of the word from the conventional reference to the "Qin Empire" as a period following the change in the official titled of the Qin ruler in 221 BCE.

[41] See Robin D.S. Yates, "Reflections on the Foundation of the Chinese Empire in the Light of Newly Discovered Legal and Related Manuscripts," in Kwang-tsuu Chen, ed., *Dongya kaoguxue de zaisi – Zhang Guangzhi xiansheng shishi shi zhounian jinian lunwenji* 東亞考古學的再思—張光直先生逝世十週年紀念論文集 [*Rethinking East Asian archaeology: A memorial essay collection for the tenth anniversary of Kwang-chih Chang's death*] (Taipei: Academia Sinica, 2013), 473-506; and Takamura, "Sengoku Shin no "teikoku" ka to shūen ryōiki tōchi no hensen 戦国秦の「帝国」化と周縁領域統治の変遷 ["Imperialization" of Qin during the Warring States era and changes in territorial control at the frontiers], in Takamura et al., eds., *Shūen ryōiki kara mita Shin Kan teikoku* 周縁領域からみた秦漢帝国 [*Frontier perspective on the Qin and Han Empires*] (Tokyo: Rokuichi shobō, 2019), 51–66. Steven Sage, *Ancient Sichuan and the Unification of China* (Albany: State University of New York Press, 1993) remains the most detailed English-language account of the Qin conquest and administrative incorporation of Sichuan. For a more recent study, see Chuan-an Hu, "Early Chinese Empires and the People without History: Risistance, Agency and Identity of Ancient Colonial Sichuan," Ph.D. dissertation, McGill University, 2017.

territorial conquests of the middle and late Warring States era were equally or more important for the emergence of Qin as the dominant power of continental East Asia. None of these conquests taken individually qualifies as a threshold, on crossing which the Qin undisputedly qualifies as an empire. This said, the Qin conquest of the Chengdu Plain deserves attention not only because of its enormous strategic impact: control over this region allowed Qin armies to outflank their major adversary, the state of Chu, whose capital was located downstream the Yangzi River. By advancing into Sichuan, the Qin rulers incorporated a society and an economy very different from those of the core region of their polity – something that many scholars today consider essential to the definition of an empire.[42] In 316 BCE, for the first time in history, a polity based in the Yellow River basin established direct administrative control over part of the Yangzi valley and brought the dryland agricultural zone of North China and rice economies of the South under one political umbrella.

The occupation of regions ecologically and socially distinct from the conquering state's core triggered the development of strategies and policies aimed at controlling and exploiting the newly acquired populations and resources. The degree to which these strategies were conducive

[42] See, for example, Terence D'Altroy, "Empires Reconsidered: Current Archaeological Approaches," *Asian Archaeology*, vol. 1, nos. 1-2 (2018): 95-109. Proponents of Immanuel Wallerstein's world-systems theory place emphasis on economic differences when the core region with its advanced agriculture and manufacturing forcibly imposes exchange relations on the periphery that supplies mineral resources and animal products. For a recent summary of various definitions of "empire," see Michael Gehler and Robert Rollinger, "Imperien und Reiche in der Weltgeschichte – Epochenübergreifende und globalhistorische Vergleiche," in Gehler und Rollinger, eds., *Imperien und Reiche in der Weltgeschichte – Epochenübergreifende und globalhistorische Vergleiche* (Wiesbaden: Harrassowitz, 2014), 1-32. Thomas Barfield's influential definition emphasizes exploitation of diversity as the essential characteristic of an empire. Other features on his list, such as extensive transportation and communication systems, are in fact the functions of the first one, since sustainable exploitation of distant provinces presupposes communication infrastructure. See Barfield, "The Shadow Empires: Imperial State Formation Along the Chinese-Nomad Frontier," in Susan Alcock, Terence D'Altroy, Kathleen Morrison, and Carla Sinopoli, eds., *Empires: Perspectives from Archaeology and History* (Cambridge: Cambridge University Press, 2001), 10-41. For the analyses of empire as world systems, see, for example, V.A. Yakobson, ed., *Istorija Vostoka* [*History of the Orient*], 6 vols. Vol. 1: *Vostok v drevnosti* [*Orient in Antiquity*] (Moscow: Vostochnaja literatura RAN, 1997), 221; and Hans-Heinrich Nolte, *Weltgeschichte: Imperien, Religionen und Systeme, 15–19. Jahrhudert* (Wien, Köln, Weimar: Böhlau, 2005).

to further territorial expansion defined the fates of imperial projects, in particular, Qin's success vis-à-vis the rest of the "warring states." Sichuan presents an archaeologically and textually well-documented case of administrative and economic dynamics of empire-building. Although the Qin forces established their headquarters at the city of Chengdu, which used to be the center of the major regional polity of Shu 蜀, the local dynasty endured for another thirty years until 285 BCE. This period was marked by continuing local resistance against the Qin presence, on the one hand, and, on the other, by the large-scale, state-organized immigration from the Qin core and Qin-controlled regions in North China, accompanied by government-managed settlement and distributions of agricultural land.[43]

As one of Qin's first major territorial seizures outside its heartland in the Wei River basin, Sichuan became an arena of experimentation with the strategies of imperial rule, and it is here that some important decisions were probably made that instructed the subsequent course of the Qin Empire. The Qin policies can be categorized under the hegemonic-territorial model that locates the strategies of imperial rule along the continuum between the hegemonic strategy of loose and indirect rule when costs of the empire are kept low through delegation of administrative functions to the client rulers, and the territorial strategy of direct and intense rule accompanied by heavy investment in administration, security, and physical infrastructure.[44] Sichuan presents the case of both strategies applied selectively at different times. In course of the late Warring States period,

[43] For an overview of Sichuan's history after the Qin conquest in 316 BCE, see, for example, Yang Kuan 楊寬, *Zhanguo shi* 戰國史 [*History of the Warring States period*] (Shanghai: Shanghai renmin, 2008), 354-356; and Sage, *Ancient Sichuan*, 124-142.

[44] For the applications of the hegemonic-territorial model in the study of specific pre-modern empires, see, for example, Edward Luttwak, *The Grand Strategy of the Roman Empire from the First Century A.D. to the Third* (Baltimore: John Hopkins University Press, 1976); and D'Altroy, *Provincial Power in the Inka Empire* (Washington, D.C.: Smithsonian Institution Press, 1992).

however, the Qin strategies of administration and economic exploitation appear to have drifted toward the territorial modality.

State-organized migration and settlement, in particular, became the key to the military control and resource extraction, which largely determined the logistical efficiency of the Qin conquests. At the same time, the fiscal model based on intensive exploitation of a circumscribed taxation base created through colonization, on the one hand, and on the state-organized redistribution of extracted surpluses, on the other, imposed severe limitations on the empire's capacity to incorporate populations and territories in a sustainable way. Much of the economic change instigated by Qin's empire-building had to do with the government's groping for possible ways to improve the efficiency of state finance as territorial expansion inflated the costs of the extraction model that proved so successful at the earlier stages of conquest. Contraction of "physiocratic," redistributive state economy, decline of the unfree labor system, monetization of economic transactions in general and tax payments and state procurement, in particular, were among the key economic processes that unfolded under the imperial Qin and extended into the early decades of the subsequent Han era.[45] This socio-economic "process of the empire" is the central subject of the present study.

4. Historiographical perspectives on the Qin empire-building and economic change

The teleological view on empire-building in the Warring States period China is an enduring legacy of Han historiography, particularly Jia Yi's 賈誼 (200–169 BCE) analysis of the Qin history

[45] For the concept of military-physiocratic fiscal model based on direct extraction and redistribution of in-kind revenues and labor resources, see Richard von Glahn, *The Economic History of China from Antiquity to the Nineteenth Century* (Cambridge: Cambridge University Press, 2016), 84-85.

in his "Discourses on the faults of Qin" (*Guo Qin lun* 過秦論). Within this paradigm, the Qin history after the mid-fourth century BCE self-strengthening reforms is viewed as a run-up to the imperial unification under the Qin and subsequently Han empires. Reference to the popular aspiration for political unification that would finally put an end to warfare and violence of the Warring States era was an important element in the legitimization of the imperial order, at least among the intellectual elite.[46]

Present-day historiography has made some adjustments to the imperial teleology.[47] The abstract "will of the people" was objectified in terms of economic integration during the Warring States era crowned with political unification;[48] or in terms of skyrocketing social and geographic mobility, formation of the international "market for talents" within the Zhou cultural sphere, and development of a powerful ideology of the "great unity."[49] Some studies equally emphasize economic integration and ideological change as paramount factors in the imperial unification.[50]

However, it is worthwhile pointing out that neither economic integration nor ideology of political unity as such necessarily lead to political unification. Both trends were well-pronounced not only in the late Warring States Zhou world but also, for two examples, in the late Classical

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[46] *Shiji*, 6.278-283.

[47] For an excellent recent summary of the impact of the Han historiographic tradition on the later interpretations of Qin history, see Tsuruma, *Shin teikoku no keisei*, 542-553.

[48] For the economic determinism in empire-building, see, for example, Yang Kuan, *Zhanguo shi*, 440-441; and Lin Ganquan 林甘泉, ed., *Zhongguo jingji tongshi* 中國經濟通史 [*Economic history of China*]. *Qin Han jingji juan* 秦漢經濟卷 [*Qin and Han economy*] (Beijing: Jingji ribao, 1999), 16-18.

[49] For this socio-ideological determinism, see, for example, Pines, "'The One That Pervades the All' in Ancient Chinese Political Thought: The Origins of 'The Great Unity' Paradigm," *T'oung Pao*, Second Series, 86.4/5 (2000): 280-324; and Pines, *Envisioning Eternal Empire: Chinese Political Thought of the Warring States Era* (Honolulu: University of Hawai'i Press, 2009), 115-184. The title of the latter work points at its teleological perspective.

[50] See, for example, Shelach and Pines, "Secondary State Formation and the Development of Local Identity: Change and Continuity in the State of Qin (770–221 B.C.)," in Miriam Stark, ed., *Archaeology of Asia* (Oxford: Blackwell, 2006), 202-230.

Greece and medieval Western Europe. Instead of an enduring, centralized political organization, the latter two proceeded as multi-state systems. A much more nuanced analysis is needed to establish the causal significance of specific variables in terms of observed outcomes.[51]

So far as the trends of economic development are concerned, recent studies have observed the emergence of two distinctive patterns of political-economic development by the late Warring States period, one featuring private entrepreneurship, industrial and commercial expansion, relative autonomy of artisan and merchant classes in the face of state authorities, and considerable degree of political decentralization within regional polities; and the other, centralized bureaucratic institutions, powerful autocratic rulers, and state control over economic resources.[52] Interregional economic exchange was making headway under both models. At the very least, the nexus of integration and empire-building cannot be taken for granted.

The most systematic criticism of the interpretation of Qin history from the perspective of its supposedly predetermined outcome was offered by the Japanese scholar Tsuruma Kazuyuki 鶴間和幸 in his book on the formation of the Qin imperial territory. Among other things, Tsuruma points out that neither contemporary nor the Han authors refer to the transaction inconveniences caused by multiple currencies, measurement systems, and writing systems of the Warring States era, or positively assess the impact of the First Emperor's standardization measures.[53] Instead of

[51] For an analysis of convergence and divergence in political trajectories of Warring States China and early modern Western Europe, see Victoria Tin-bor Hui, *War and State Formation in Ancient China and Early Modern Europe* (Cambridge: Cambridge University Press, 2005).

[52] See Emura Haruki 江村治樹, *Sengoku Shin Kan jidai no toshi to kokka: kōkogaku to bunken shigaku kara no appuroochi* 戦国秦漢時代の都市と國家：考古学と文献史学からのアップローチ [*Cities and states in the Warring States, Qin, and Han era: Archaeological and textual approaches*] (Tokyo: Hakuteisha, 2005), 116-137; and von Glahn, *The Economic History of China*, 83.

[53] Tsuruma, *Shin teikoku no keisei*, 545.

focusing on the purported objective advantages of imperial unity that ultimately rendered it inevitable, he proposes embedding analysis in the polycentric world of the Warring States and detailed consideration of factors in shaping the empire as a specific and by no means the only possible political configuration of its multiple interaction networks.[54]

Alternative perspective on the empire-building emphasizes institutional explanations. This line of argument bypasses the question of whether or not the Warring States world was destined to be unified. Instead, it focuses on the legal, administrative, fiscal, and military institutions that allowed Qin to inflict defeats on and subjugate its rivals. The impact of institutional change on the rise of Qin was also highlighted in Jia Yi's essay.[55]

The wealth of documents unearthed during the late decades of the twentieth and in the beginning of the present century allowed fleshing out this explanation to an unprecedented degree of detailedness. Robin D.S. Yates concludes his study of the state control of bureaucrats under the Qin, which is primarily based on the Shuihudi legal materials, with the following statement: "It is my opinion that one of the main reasons why the Qin was able to unify the empire and found the imperial system was because of the bureaucratic procedures and techniques that I have outlined in this paper."[56] Yates and others similarly emphasized the role of a unified yet flexible legal system capable of adjusting itself to the new geographic, social, and economic conditions;[57] court

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[54] Tsuruma, *Shin teikoku no keisei*, 549-550.

[55] Jia Yi singled out promulgation of new laws, official encouragement of agricultural labor (for men) and weaving (for women), and military reforms, along with the diplomatic effort to organize alliances in support of Qin. See *Shiji*, 6.278-279: 當是時，商君佐之，內立法度，務耕織，修守戰之備，外連衡而鬬諸侯，於是秦人拱手而取西河之外。

[56] Yates, "State Control of Bureaucrats under the Qin: Techniques and Procedures," *Early China* 20 (1995): 331-365.

[57] See, for example, A.F.P. Hulsewé, "Law as One of the Foundations of State Power in Early Imperial China," in S.R. Schram, ed., *Foundations and Limits of State Power in China* (Hong Kong: Chinese University Press, 1987), 11-32; Yates, "Reflections on the Foundation of the Chinese Empire"; Xing Yitian (Hsing I-tien) 邢義田, "Qin Han de lüling xue – jianlun Cao Wei lü boshi de chuxian" 秦漢的律令學—兼論曹魏律博士的出現 [Study of statutes and

procedures designed to promulgate the knowledge of law, recognition of legal authority, and popular participation in law enforcement;[58] state investment in transportation infrastructure and means of communication that facilitated the transfer of enormous volumes of information;[59] and standardization policies aimed at reducing transaction costs and making possible the centralized control over redistributive state economy.[60]

Understanding the Qin's triumph over its rivals as well as the changes its economic-managerial practices underwent in the process of empire-building implies comparison with institutions and policies of other "warring states." Due to vicissitudes of source preservation, very little written evidence, either transmitted or excavated, is available for studying the socio-economic organization in the eastern part of the Zhou world with its states of Wei 魏, Zhao 趙,

ordinances under the Qin and Han, with a note on the emergence of "erudites of law" in Cao Wei], in Xing Yitian, *Zhi guo an bang: falü, xingzheng yu junshi* 治國安邦：法律、行政與軍事 [*Governing the state and pacifying the realm: law, administration, and military*] (Beijing: Zhonghu shuju, 2011), 1-61.

[58] See, for example, Korolkov, "Arguing about Law," 37-71; Korolkov, "Calculating Crime and Punishment: Unofficial Law Enforcement, Quantification, and Legitimacy in Early Imperial China," *Critical Analysis of Law* 3.1 (2016): 70-86.

[59] For transportation networks, see, for example, Wang Zijin 王子今, *Qin Han jiaotong shi gao* 秦漢交通史稿 [*An outline of the history of transportation during the Qin and Han periods*] (Beijing: Zhonggong zhongyang dangxiao, 1994); Nylan, "The Power of Highway Networks during China's Classical Era (323 BCE – 316 CE): Regulations, Metaphors, Rituals, and Deities," in *Highways, Byways, and Road Systems in the Pre-Modern World*, 33-65. For the relay post and other systems of official communication, see Fujita Katsuhisa 藤田勝久, *Chūgoku kodai kokka to jōhō dentatsu – Shin Kan kandoku no kenkū* 中国古代国家と情報伝達―秦漢簡牘の研究 [*The information system in ancient Chinese states: A study of bamboo and wooden slips during the Qin and Han periods*] (Tokyo: Kyūko shoin, 2016); Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 729-737. For formalization of information in bureaucratic documents, see, for example, Xing Yitian, "Cong jiandu kan Han dai de xingzheng wenshu fanben – *shi*" 從簡牘看漢代的行政文書範本―"式" [*Formats of the Han administrative document as reflected in the excavated texts – the "shi"*], in Xing Yitian, *Zhi guo an bang*, 450-472.

[60] For a brief survey of various standardization policies, including standardization of script, vocabulary, weights and measures, output norms in manufacturing, and food rations for state-dependent laborers, see Li Junming 李均明, "Qin Han diguo biaozhunhua cuoshi shulüe" 秦漢帝國標準化措施述略 [A survey of standardization measures in the Qin and Han empires], in Li Mingzhao 黎明釗, ed., *Han diguo de zhidu yu shehui zhixu* 漢帝國的制度與社會秩序 [*Official regulation and social order in the Han Empire*] (Hong Kong: Oxford University Press (China), 2012), 47-66.

Han 韓, Yan 燕, and Qi 齊.[61] The peripheral states of Qin and Chu 楚 are much better reflected in the excavated manuscripts, and they appear to have had both similarities and differences in terms of administrative and economic organization.

In spite of the unbalanced distribution of written evidence for the Qin and the "eastern states," economic and institutional historians in China and Japan attempted comparative analysis in order to identify specific features of the Qin fiscal regime and economic management. Yamada Katsuyoshi 山田勝芳 and Yang Zhenhong 楊振紅 used excavated legal documents to reconstruct the Qin system of agricultural taxation. They demonstrated that it involved high degree of centralized control over land resources and intensive monitoring of the tax base in order to maximize surplus extraction by the state authorities.[62] Such fiscal organization could have given Qin an edge over other Warring States polities that practiced less intensive taxation regimes. In

[61] Two articles from two different statutes of the state of Wei are found as an appendix to one of the manuscripts excavated from the Qin tomb no. 11 at Shuihudi, see *Shuihudi*, 174-176; Hulsewé, *Remnants of Ch'in Law: An Annotated Translation of the Ch'in Legal and Administrative Rules of the 3rd Century B.C. Discovered in Yün-meng Prefecture, Hu-pei Province, in 1975* (Leiden: Brill, 1985), 208-210. The fragments of legal texts excavated from the mid-Western Han tomb at Yinqueshan 銀雀山, in the present-day Shandong Province, were claimed to be relevant to the Qi legislation, although they almost certainly are not the actual excerpts from the Qi statutes. See Yinqueshan Han mu zhujian zhengli xiaozu 銀雀山漢墓竹簡整理小組, ed., *Yinqueshan Han mu zhujian* 銀雀山漢墓竹簡 [*The bamboo slips from the Han tomb at Yinqueshan*], vol. 1 (Beijing: Wenwu, 1985), 127-154.

[62] See, for example, Yamada Katsuyoshi 山田勝芳, *Shin Kan zaisei shūnyū no kenkyū* 秦漢財政収入の研究 [*Studies in the financial incomes and expenditure in the Qin and Han empires*] (Tokyo: Kyūko shoin, 1993); Yang Zhenhong 楊振紅, "Cong xinchu jiandu kan Qin Han shiqi de tianzu zhengshou" 從新出簡牘看秦漢時期的田租徵收 [Collection of the land tax in the Qin and Han periods as reflected in the newly excavated documents on bamboo and wood], in *Jianbo* 3 (2008): 331-342; Yang Zhenhong, "Longgang Qin jian zhu "tian", "zu" jian shiyi buzheng" 龍崗秦簡諸"田"、"租"簡釋義補正 [New interpretation of the Longgang fragments with graphs "tian" and "zu"], in *Chutu jiandu yu Qin Han shehui* 出土簡牘與秦漢社會 [*Excavated documents and the Qin-Han society*] (Guilin: Guangxi shifan daxue, 2009), 164-186; Yang Zhenhong, "Qin Han shiqi de tianzu zhengshou" 秦漢時期的田租徵收 [Collection of the land tax in the Qin and Han periods], in *Chutu jiandu yu Qin Han shehui (xubian)* 出土簡牘與秦漢社會（續編） [*Excavated documents and the Qin-Han society (part two)*] (Guilin: Guangxi shifan daxue, 2015), 119-141. See also Nan Yuquan 南玉泉, "Longgang Qin jian suo jian chengtian zhidu jiqi xiangguan wenti" 龍崗秦簡所見程田制度及其相關問題 [Regime of "norms for the fields" reflected in the Qin documents from Longgang and related questions], *Jianbo yanjiu* 簡帛研究 2001, ed. Li Xueqin 李學勤 and Xie Guihua 謝桂華 (Guilin: Guangxi shifan daxue, 2001), 236-240.

the longer run, however, it encountered formidable logistical and other challenges and was gradually adjusted to reduce supervision costs on the part of the central government and to provide more space for the "fiscal compromise" between the state and the local elites at the cost of reducing government's share in agricultural surplus. Similar features and trends were observed for the labor regime, particularly the convict system that played an important role in the Qin economy but declined at the beginning of the Han era.[63]

In both cases, the choice of extraction modes was also the choice of conquest strategy as it defined the efficiency of both the military supply and territorial control but also put limitations on the range of possibilities for sustainable integration of regions into the empire. The study of the Qin fiscal constitution provides new and more nuanced explanations for successes and failures of empire-building as well as for the dynamics of the state's economic-managerial practices.[64]

Publication of the Liye materials opened up a local perspective on the empire-building and economic change that focuses on cost-efficiency, spatial distribution of state presence across the landscape, geographic shape of communication networks, and other aspects of analysis of imperial systems emphasized in the network theory. Miyake Kiyoshi 宮宅潔 studied the Qin system of military supply as reflected in the Qianling materials and argued that its high transportation costs

[63] For the importance of the forced labor regime in the Qin's state economy and its decline in the early Western Han period, see, for example, Miyake Kiyoshi 宮宅潔, "Laoyixing tixi de jiegou yu bianqian" 勞役刑體系的結構與變遷 [Structure and evolution of the system of penal labor], in *Zhongguo gudai xingzhi shi yanjiu* 中國古代刑制史研究 [*Studies in the penal system in ancient China*], transl. Yang Zhenhong et al. (Guilin: Guangxi shifan daxue, 2016), 60-158; and Gao Zhenhuan 高震寰, *Qin Han xingtu zhidu de fazhan – cong laodongli yunyong de jiaodu zhuoyan* 秦漢刑徒制度的發展—從勞動力運用的角度著眼 [*The development of the convict labor regime during the Qin and Han periods, with the focus on the use of labor force*], Ph.D. dissertation, National Taiwan University, 2017.

[64] In the historical scholarship on taxation systems, "fiscal constitution" is used to define the relationship between the assortment of taxes, rents, tolls, etc. that generate state income and the state's political, economic, and military development. See Andrew Monson and Walter Scheidel, "Studying Fiscal Regimes," in Monson and Scheidel, eds., *Fiscal Regimes and the Political Economy of Premodern States* (Cambridge: Cambridge University Press, 2015), 3-27.

contributed to the excessive exploitation of conscripted labor, financial exhaustion, and effectively the collapse of the Qin Empire.[65] The problems of intensive monitoring in the Qin's state economy and fiscal system were highlighted by the research on the official communication at the empire's southern frontier, which revealed inefficiencies and disruptions in conveying documents between administrative units and challenged the image of smoothly functioning bureaucracy in the normative, legal texts.[66] Equally severe challenges were presented by the highly uneven distribution of state presence across the landscape due to the "friction of terrain" in the mountainous zone to the south of Yangzi but also to the peculiarities of the Qin economic policies.[67]

Successes and failures of empire-building and its impact on the underlying societies and economies were tied to the dynamics of financial, administrative, and military institutions and policies. Their functioning shaped the relationships between the state, the local society, and the environment. Neither the top-down, institutional perspective that emphasizes organization and

[65] Miyake, "Seifuku kara senryō tōchi he – Riya Shin kan ni mieru kokumotsu shikyū to chūtongun" 征服から占領統治へ―里耶秦簡に見える穀物支給と駐屯軍 [From conquest to occupation rule: Grain ration distributions and garrison troops as reflected in the Qin documents from Liye], in Miyake, ed., *Taminzoku shakai no gunji tōchi: shutsudo shiryō ga kataru Chūgoku kodai* 多民族社会の軍事統治―出土史料が語る中国古代 [*Military control over a multiethnic society: A history of ancient China narrated by the excavated materials*] (Tokyo: Tokyō daigaku gakujutsu shuppankai, 2018), 51-85.

[66] See, for example, Tang Junfeng 唐俊峰 (Chun Fung Tong), "Qin dai Qianling xian xingzheng xinxi chuandi xiaolü chutan" 秦代遷陵縣行政信息傳遞效率初探 [A preliminary discussion of the efficiency of administrative communication in Qianling County under the Qin Dynasty], *Jianbo* 16 (2018): 191-230.

[67] See, for example, Miyake, "Shindai Senryō kenshi shokō: Tōyō Shin kan yori mita Shin no senryō shihai to chūtongun" 秦代遷陵県志初稿―里耶秦簡より見た秦の占領支配と駐屯軍 [A draft of the Qin Qianling County gazetteer: The Qin occupational regime and garrison forces as seen from the Liye Qin documents], *Tōyōshi kenkyū* 東洋史研究 75.1 (2016): 1-32. This paper was published in Chinese as "Qin Qianling Xianzhi chugao – Liye Qin jian suojian Qin de zhanling zhipei yu zhutunjun" 秦遷陵縣誌初稿―里耶秦簡所見秦的佔領支配與駐屯軍, in Zhou Dongping 周東平 and Zhu Teng 朱騰, eds., *Falü shi yiping* 法律史譯評 [*Translated works on legal history*], vol. 5 (Shanghai: Zhongxi, 2017), 18-37. For the "friction of terrain" as a fundamental challenge to state-making in premodern societies in the upland South-East Asia and Southern China, see James Scott, *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia* (New Haven and London: Yale University Press, 2009), xi.

efficiency, nor the bottom-up, local perspective focusing on logistical hindrances, risks, and breakdowns, is sufficient to explain the historical trajectory of the Qin Empire and its afterlife. The present study combines both. It also emphasizes the spatial aspects, or territoriality, of the imperial power, and analyzes economic and other its impacts as unevenly distributed across the landscape.

5. Frontiers and imperial territoriality

Earlier in this chapter, I delved into the details of the Qin conquest of Sichuan because it brings to the fore another topic central to this study, the role of the frontiers in the transformation of state institutions of economic management. In the dynamic military environment of the Warring State world, frontiers were mobile. Sichuan, for example, was at the forefront of Qin's struggle against its archrival, the powerful southern state of Chu, until the conquest of the latter's capital region on the Middle Yangzi in 279–278 BCE. After the Qin takeover of the vast territories to the south of Yangzi in 222 BCE, frontier shifted there, and Sichuan was officially classified as an "old" Qin domain that provided servicemen, administrative cadre, and material supplies to the frontier regions. Most of the Qin's territorial acquisitions in late fourth and third centuries BCE passed through the "frontier situation" and were subject to the set of frontier policies characterized by a number of features.

First, the Qin frontiers were essentially military. They were situated at or in the immediate rear of the war theaters, and their main function was defense against hostile incursions, control over the routes of military supply, and production of grain, materials, and munitions for the garrison troops and armies in the field. All these tasks involved centralized planning and resource management. The Qin frontier policies were markedly different from those developed in the later periods of China's imperial history, particularly in the late imperial period (1368–1911 CE),

characterized by relegating broad range of administrative functions to client indigenous rulers and exploiting local political hierarchies and divisions to secure formal recognition of emperor's authority, payment of (often formal and irregular) tribute, and occasional participation in empire's military enterprises.[68] This study will argue that the high economic and social costs involved in direct, territorial rule over the frontier regions contributed to the abandonment of some of the key Qin imperial policies at the beginning of the Western Han era.

Second, the frontier expansion stimulated bureaucratic growth as the government planted the enclaves of centralized administration and fiscal extraction at the early stage of the frontier development and then sought to extend direct taxation and control of labor to the indigenous populations.[69] Scholars emphasized the impact of territorial expansion, including both conquest and internal colonization, on the formation of centralized administration as the states organized settlement, distributed land to colonists, and introduced the system of regular territorial-administrative units during the Warring States period. According to this analysis, the peripheral polities such as Qin and Chu, enjoyed an edge on their opponents because they had more expansion opportunities outside the Zhou world, as illustrated by the Qin conquest of Sichuan.[70] The need for efficient communication with the crucial new bases of centralized state power at the frontiers

[68] This difference in the frontier strategy is reflected in the terminology used in the studies of later imperial frontiers when scholars prefer to talk about "borderlands" and "margins" rather than "frontiers" as the later term presupposes a well-defined body politic within the frontier with characteristic administrative organization. For the ethno-political organization of the southern borderlands in late imperial China, see, for example, Leo Shin, *The Making of the Chinese State: Ethnicity and Expansion on the Ming Borderlands* (Cambridge: Cambridge University Press, 2006).

[69] For an excellent recent survey of the nexus between empire-building and development of bureaucratic government, see Peter Crooks and Timothy Parsons, "Empires, Bureaucracy and the Paradox of Power," in Crooks and Parsons, eds., *Empires and Bureaucracy in World History: From Late Antiquity to the Twentieth Century* (Cambridge: Cambridge University Press, 2016), 3-28.

[70] See, for example, Kimura Masao 木村正雄, *Chūgoku kodai teikoku no keisei – toku ni seiritsu no kiso jōken* 中国古代帝国の形成―特に成立の基礎条件 [*Formation of the ancient Chinese empire, with a focus on the fundamental conditions of this formation*] (Tokyo: Hikaku bunka kenkysho, 2003); Tsuruma, *Shin teikoku no keisei*, 537-539.

stimulated state investment in physical infrastructure (roads, canals, relay post, etc.)[71] as well as communication technology and skills (writing media, literacy, methods of formalization of information).[72] This investment had important ramifications for the state-managed and, by extension, the private economy.

Third, geographic frontiers were also social frontiers characterized by specific population structure that bore strong imprints of state policies. Much has been written about the military presence along the imperial frontiers, which greatly affected local consumption and instructed the flows of goods (see the following section in this Introduction). Even if the military can be called a marginal social group in terms of occupation, level and structure of incomes, consumption habits, forms of socialization etc. that were distinct from those of the core society, the Qin frontier regions also served as the loci of concentration for other populations whose social exclusion was even more pronounced. Sichuan, in particular, was renowned as an exile destination, the region where convicts served their labor terms or were permanently settled as agricultural colonists. Same referred to other frontiers. Being the creature of an imperial state, this specific frontier society relied heavily on the state for its organization and subsistence, and it was at the frontiers where official economic policies had the most pronounced impact on the local society.

Frontiers and frontier societies, therefore, were the crucial sites of empire-building and associated economic change. Where were these sites located, in geographic terms? While scholars

[71] For one of the most up-to-date studies of physical infrastructure of connectivity in pre-modern empires, see Susan Alcock, John Bodel, and Richard Talbert, eds., *Highways, Byways, and Road Systems in the Pre-Modern World* (Chichester: Wiley-Blackwell, 2012).

[72] Harold Innis, *Empire and Communications* (Victoria/Toronto: Press Procépic, 1986) is the *locus classicus* for the role of communication media in empire-building. For a recent attempt to correlate Innis' typology of media of communication with the Weberian types of economic appropriation, and to allocate historic empires within the resulting grid, see Sam Whimster, "Empires and Bureaucracy: Means of Appropriation and Media of Communication," in Crooks and Parsons, eds., *Empires and Bureaucracy*, 437-456.

have long argued that frontiers should be conceptualized as "zones" rather than "lines,"[73] it was the recent research on the territoriality of pre-modern empires that fundamentally challenged the conventional cartographic representation of frontiers as an outer perimeter of neatly bounded continuous territories. Instead, it was argued, ancient polities were networks of ritual, social, economic, and military activities and uneven distribution of state power.[74] Outside of their compact cores, the empires spread thinly along the transportation and communication corridors that connected enclaves of territorial control planted in peripheral regions.[75]

The network approach to the study of the ancient empires has a number of important methodological and theoretical ramifications. It shifts focus from political-evolutionary typologies to the analysis of the "process of empire" – the making of new identities, forms of authority, modes of production, exchange, and consumption, and administrative methods, and the networks in which people and resources circulated;[76] and employs the digital tools of geographic information analysis

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[73] With regard to the frontiers of the ancient Chinese polities, see, for example, Nicola Di Cosmo, *Ancient China and Its Enemies* (Cambridge: Cambridge University Press, 2002), 2; and Li Feng, *Landscape and Power in Early China: The Crisis and Fall of the Western Zhou, 1045–771 BC* (Cambridge: Cambridge University Press, 2006), 174-175.

[74] See, for example, Monica Smith, "Networks, Territories, and the Cartography of Ancient States," *Annals of the Association of American Geographers* 95.4 (2005): 832-849; Claudia Glatz, "Empire as Network: Spheres of Material Interaction in Late Bronze Age Anatolia," *Journal of Anthropological Archaeology* 28 (2009): 127-141; Tom Brughmans, "Thinking Through Networks: A Review of Formal Network Methods in Archaeology," *Journal of Archaeological Method and Theory* 20.4 (2013): 623-662; D'Altroy, "Empires Reconsidered," 99-100.

[75] See, for example, the analysis of Iron Age Mesopotamian empires as networks connecting the zones of territorial control, in Bradley Parker, "Geographies of Power: Territoriality and Power during the Mesopotamian Iron Age," *Archaeological Papers of American Anthropological Association* 22 (2012): 126-144; and Peter Bedford, "The Neo-Assyrian Empire," in Ian Morris and Walter Scheidel, eds., *The Dynamics of Ancient Empires: State Power from Assyria to Byzantium* (Oxford: Oxford University Press, 2009), 30-65. In his study of the formation of state territory in Spring and Autumn and Warring States period China, Hans Stumpfeldt also observed that territorial expansion of the Zhou states in Shandong region unfloded along the existing communication lines, often resulting in the patchwork of spatially unconnected strongholds. See Stumpfeldt, *Staatsverfassung und Territorium im antiken China* (Düsseldorf: Bertelsmann Universitätsverlag, 1970), 287-288.

[76] For the processual approach to state formation in the pre-modern world, see, for example, Roderick Campbell, "Toward a Networks and Boundaries Approach to Early Complex Polities: The Late Shang Case," *Current Anthropology* 50.6 (2009): 821-848; and David Ludden, "The Process of Empire: Frontiers and Borderlands," in Peter Fibiger Bang and C.A. Bayly, eds., *Tributary Empires in Global History* (New York and London: Palgrave Macmillan, 2011), 132-150.

to explore the sociopolitical landscape of polities and what the distribution of its various features (e.g. provincial centers, settlements, storage facilities, road networks) can tell about the spatial contours of ancient empires.[77]

Importantly for this study, this approach also highlights the multiplicity of the frontiers. If imperial territoriality, indeed, can be described as "noncontiguous zones, in which the interstices can be filled in opportunistically,"[78] and if territorial control was only feasible "in limited pockets that offered enough political, military, or economic advantage to offset the cost of annexation" (as suggested by the hegemonic-territorial model),[79] then the perimeters of each of such zones or pockets were also the imperial frontiers that could expand outwards or contract as the "process of empire" unfolded. As the case of the Qin expansion to the south of Yangzi exemplifies, such zones could be also summarily abandoned on a temporal or permanent basis. Configurations and territorial dynamics of these pockets of imperialism was largely determined by the socio-economic policies of the state that will be the focus of this study.

As long as we recognize the inadequacy of maps that depict the Qin Empire as a continuous territorial monolith (see Map 1.1[80]), it is clear that frontier zones included much of what the conventional maps depict as empire's hinterland.[81] As this study will demonstrate, various

[77] See, for example, Steven Kosiba and Andrew Bauer, "Mapping the Political Landscape: Toward a GIS Analysis of Environmental and Social Difference," *Journal of Archaeological Method and Theory* 20 (2012): 61-101.

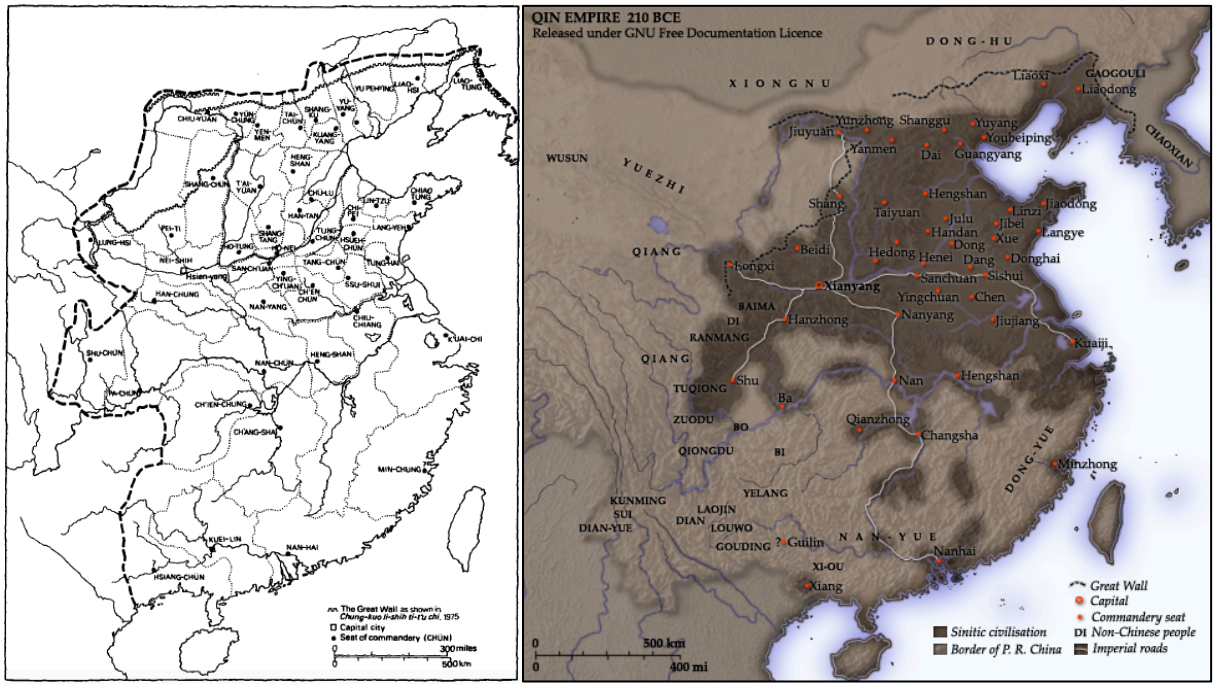
[78] Smith, "Networks, Territories, and Cartography," 838.

[79] Parker, "Geographies of Power," 138.

[80] Sources: Denis Twitchett and John Fairbank, eds., *The Cambridge History of China*, vol. 1: *The Ch'in and Han Empires, 221 B.C. – A.D. 220* (Cambridge: Cambridge University Press, 1986), 41 (left); Wikimedia Commons https://commons.wikimedia.org/wiki/File:Qin_empire_210_BCE.png (right).

[81] In personal communication on December 19, 2019, Robin D.S. Yates accurately observed that maps in modern publications can be "used for many different reasons, including political. So maps that are based on current nationalistic claims are [contemporary] political documents."

"internal" frontiers, such as those surrounding the pockets of intensive state presence, and those separating parts of the empire that had already underwent a lengthy process of incorporation from the recently conquered territories, were essential to the territorial and institutional setup of the Chinese imperial state during its formative stages.



Map 1.1: Two cartographic representations of the Qin Empire: Territorial monolith with continuous external borders (left) vs. patchwork of enclaves (right)

Equally importantly, scholarship on territoriality emphasized interactive relationship between the imperial cores and peripheries when "flows of ideas, people, and materials move in both directions."[82] Refocusing on the agencies of provincial and colonial subjects was largely

[82] D'Altroy, "Empires Reconsidered," 99.

informed by postcolonial theory with its focus on the subalterns' resistance to imperial rule,[83] on the one hand, and, on the other, reimportation of colonial politics, lifestyles, and identities back to the metropolitan society.[84] The latter perspective, the present study will argue, may be useful for understanding the impact of frontier politics on economic change in an ancient empire. Piecemeal logistical, financial, military solutions originally molded to counter the "tyranny of distance," reduce administrative and monitoring costs, or strengthen the government's claim on strategic resources, had a potential spillover effect upon the official practices of economic management and the economy in general. Some of the possible impacts will be touched upon in the following section that deals with the economic consequences of the empires.

6. Sources

The economic policies of Qin were at the center of heated scholarly debates from the middle of the Western Han era on. Opponents of fiscal centralization and governmental intervention in private markets, particularly the official monopolies on the production and sale of salt, iron, and liquor under Emperor Wu (141–87 BCE), and the critics of conspicuous consumption and polarization of wealth in contemporary society all sought the root of evil in the Qin legacy going back either to the mid-fourth century BCE reformer Shang Yang (d. 338 BCE)

[83] For a recent study of resistance to imperial rule in the Roman Empire, see Lisa Eberle, "Resistance," in Antoinette Burton and Carlos Noreña, eds., *A Cultural History of Western Empires* (New York: Bloomsbury, 2018), vol. 1: *A Cultural History of Western Empires in Antiquity (500 BCE – 800 CE)*, 177-199.

[84] For early observations about the impact of European imperialism and colonial societies on political radicalization in metropoles, see, for example, Hannah Arendt, *The Origins of Totalitarianism*, new edition with added prefaces (San Diego, New York, and London: Harcourt Brace & Company, 1979), 123-302. For a study of the domestic reception of eighteenth-century employees of the British East India Company, see Tillman Nechtman, *Nabobs: Empire and Identity in Eighteenth-Century Britain* (Cambridge: Cambridge University Press, 2010).

or to the First Emperor.[85] The best-known "economic" accusation against the Qin was the purported destruction of the ancient communal landholding at the hands of Shang Yang who instead promulgated private property of land, opening up the way to extreme social inequality.[86] On a more general level, the Qin were accused of overtaxing their subjects and exhausting the resources of the empire in endless and largely pointless military campaigns and gargantuan construction projects.

In the twentieth century, especially starting in the 1970's, the avalanche of archaeological discoveries has overruled much of the long-standing knowledge about the state and empire of Qin while at the same time allowing investigation into the aspects of Qin history that were not addressed at all in previous scholarship.[87] Particularly momentous for the study of the Qin government policies, legal regime, and economic practice of the late Warring States and the imperial periods are the manuscripts excavated from numerous sites mainly in the Yangzi River valley. This vast region is characterized by a high underground water table. The waterlogged tombs

[85] See Wang Liqi 王利器, ed., *Yantie lun jiaozhu* 鹽鐵論校注 [*Discourse on salt and iron, edited and annotated*], 2 vols., in *Xinbian zhuzi jicheng* 新編諸子集成 [*Newly compiled collection of ancient philosophical texts*] (Beijing: Zhonghua shuju, 1992), 2.93-113.

[86] The main reason why this particular accusation got so much traction was probably because it was advanced by one of the most influential classical scholars of all time, Dong Zhongshu 董仲舒 (179–104 BCE). See *Hanshu*, 24A.1137.

[87] There is no up-to-date one-stop-shop summary of archaeological discoveries associated with the Qin polity, and the utility of the notion of "Qin material culture" as an archaeologically distinct entity is doubted by some Western archaeologists, although it remains broadly used in China. For the brief surveys of (supposedly) Qin-related archaeological finds, see, for example, Wang Xueli 王學理 and Liang Yun 梁雲, *Qin wenhua* 秦文化 [*Qin culture*] (Beijing: Wenwu, 2001); Teng Mingyu 滕銘予, *Qin wenhua: cong fengguo dao diguo de kaoguxue guancha* 秦文化：從封國到帝國的考古學觀察 [*Qin culture: An archaeological study of the transition from a vassal state to an empire*] (Beijing: Xueyuan, 2003); Zhao Huacheng 趙化成 and Gao Chongwen 高崇文, *Qin Han kaogu* 秦漢考古 [*Qin and Han archaeology*] (Beijing: Wenwu, 2004); Zhao Huacheng, "New Explorations of Early Qin Culture," in Pines et al., eds., *Birth of an Empire*, 53-70; and, for the excavated Qin manuscripts, Chen Wei 陳偉, ed., *Qin jiandu heji* 秦簡牘合集. *Shiwen zhushi xiuding ben* 釋文注釋修訂本 [*Collected Qin manuscripts on bamboo and wood. Edited and annotated transcriptions*] (Wuhan: Wuhan daxue, 2016).

and ancient wells provide favorable conditions for the prolonged preservation of organic materials on which these manuscripts were inscribed, bamboo slips and wooden tablets.[88]

The impact of these excavated documents as a radically new source of evidence can hardly be overemphasized. These texts shed unique light on the entire domain of social, economic, and cultural life that were all but overlooked in transmitted historical records. Such key aspects of the economic organization of the state and empire of Qin as its fiscal regime, unfree labor system, transportation network, state-managed sector of the economy, and its interaction with private markets, could not be properly studied if not for the excavated legal statutes, administrative records, private letters and diaries by the local officials, maps and travel itineraries, and so on. While some of these texts, especially the legal ones, embody a normative perspective on the work of various systems of state control and extraction, others, for example, administrative documents, reflect the actual situation on the ground, which often diverged from the letter of regulation.

Unearthed Qin documents contain a number of major collections of legal texts that provide detailed information on many aspects of the official economic policies, included but not limited to taxation, land tenure, market regulation, slavery and other forms of unfree labor, monetary policies, and so on.[89] To name just the most important ones, 1,155 bamboo inscribed slips (along with some 80 fragments) excavated in 1975 from a Qin official's tomb at Shuihudi 睡虎地 (Hubei Province) include three collections of statutes, explanations of particular legal rules and terminology, and model court cases. In 1989, a hoard of 293 fragments of bamboo slips bearing excerpts from

[88] For an excellent discussion of preservation conditions of ancient Chinese manuscripts, see Enno Giele, "Using Early Chinese Manuscripts as Historical Source Materials," *Monumenta Serica* 51 (2003): 409-438, esp. 417-422.

[89] The following brief summary of some major manuscript corpora relevant to the present study is based on Maxim Korolkov, "Arguing about Law: Interrogation Procedure under the Qin and Former Han Dynasties," *Études chinoises*, vol. XXX (2011): 37-71, esp. 40-46.

miscellaneous legal statutes was excavated from burial no. 6 at Longgang 龍崗, which is located in the same present-day county as Shuihudi. A relatively short ordinance inscribed on a wooden tablet and dated 309 BCE was discovered in yet another tomb, probably also belonging to a local Qin official, at Haojiaping 郝家坪 in northern Sichuan Province. This is the earliest archaeologically retrieved Qin legal text, which provides invaluable evidence on the surveying and distribution of agricultural land in the wake of Shang Yang's reforms.

Apart from the Qin texts proper, excavated legal manuscripts from the early Western Han era allow comparison between the Qin and Han regulations. The Han law in general and the early Western Han statute law and judicial practice in particular reveal strong continuity with the Qin legal tradition, to the extent that some scholars suggested that the first Han rulers adopted the latter in its entirety, without making any changes at all.[90] This may be an exaggeration. Comparative study of Qin and Han statutes demonstrates that many important legal norms and institutions remained essentially unchanged over the dynastic interregnum. At the same time, other regulations were allowed to fall into disuse, adjusted, supplemented, or replaced, which can be considered a reflection of social, economic, or political changes, especially when such observations are supported by other lines of evidence. Of the Han legal manuscripts used in this study, the most important is the collection of at least twenty-seven statutes and a group of ordinances excavated from tomb no. 247 at Zhangjiashan 張家山, Hubei Province, along with the compilation of

[90] See, for example, Gao Min 高敏, "Han chu falü xi quanbu jicheng Qin lü shuo: du Zhangjiashan Han jian *Zouyan shu* zhaji" [A theory that the early Han legal system adopted the Qin law in its entirety: notes on the *Doubtful legal cases submitted for revision* from among the Han manuscripts from Zhangjiashan] 漢初法律系全部繼承秦律說：讀張家山漢簡《奏讞書》札記, in Gao Min, *Qin Han Wei Jin Nanbeichao shi lunkao* 秦漢魏晉南北朝史論考 [*Studies in the history of Qin, Han, Wei, Jin, and Northern and Southern Dynasties*] (Beijing: Zhongguo shehui kexue, 2004), 76-84.

doubtful legal cases, some of which date back to the late Warring States and imperial Qin.[91] A number of other collections of early Western Han legal texts remain unpublished.[92]

From the source criticism point of view, much more problematic are the unprovenanced but purportedly ancient documents that since 1994 (and possibly earlier) have been purchased in the Hong Kong antiques market by various institutions in mainland China. Such purchases are often euphemized as donations in the official reports. In 2007, the Yuelu Academy 岳麓書院 of Hunan University acquired a large group of Qin documents, including a collection of doubtful legal cases similar to those excavated at Zhangjiashan, and several groups of statutes and ordinances. The publication is still ongoing.[93] While the authenticity of many unprovenanced documents is often questioned, and appropriately so insofar as some collections have been

[91] For a recent English translation and study of the Zhangjiashan documents, see Anthony Barbieri-Low and Robin D.S. Yates, *Law, State, and Society in Early Imperial China: A Study with Critical Edition and Translation of the Legal Texts from Zhangjiashan Tomb no. 247* (Leiden and Boston: Brill, 2015), 2 vols.

[92] One of the largest caches of the early Western Han legal documents was excavated in 2006 from tomb no. 77 at Shuihudi, close to the site where the Qin legal manuscripts were unearthed in 1975. This collection includes many statutes and ordinances, including those that were heretofore unknown. For an introduction to this find and publication of some sample documents, see Xiong Beisheng 熊北生, Chen Wei 陳偉, and Cai Dan 蔡丹, "Hubei Yunmeng Shuihudi 77 hao Xi Han mu chutu jiandu gaishu" 湖北雲夢睡虎地 77 號西漢墓出土簡牘概述 [Introduction to the documents on bamboo slips and wooden tablets excavated from the Western Han tomb no. 77 at Shuihudi, Yunmeng County, Hubei Province], *Wenwu* 3 (2018): 43-53. Administrative archive dated to the reign of the Western Han Emperor Wu (140–87 BCE) was excavated in 2003 from an ancient well at Zoumalou 走馬樓, Changsha, Hunan Province. Among other documents, archaeologists reported a collection of judicial case records inscribed on bamboo slips. See Changsha jiandu bowuguan 長沙簡牘博物館 and Changsha shi wenwu kaogu yanjiusuo fajuezu 長沙市文物考古研究所發掘組, "2003 nian Changsha Zoumalou Xi-Han jiandu zhongda faxian" 2003 年長沙走馬樓西漢簡牘重大發現, *Chutu wenxian yanjiu* 出土文獻研究 7 (2005): 57-64. Another recently reported find is the largest collection of Han manuscripts discovered in a single tomb. It was excavated from the Western Han tomb at Hujia caochang 胡家草場, Hubei Province, and consists of 4,546 bamboo slips that bear various texts, including a collection of statutes and ordinances. See Guojia wenwuju 國家文物局, "Guojia wenwuju zhaokai "Kaogu Zhongguo" zhongyao jinzhan gongzuo hui" 國家文物局召開"考古中國"進展工作會 [National Cultural Relics Administration conducts a working conference on the progress in "excavating China"], http://www.kgzg.cn/forum.php?mod=viewthread&tid=393151&extra=page%3D1%26filter%3Dtypeid%26typeid%3D2333, accessed May 8, 2019.

[93] For the initial report on these texts, see Chen Songchang 陳松長, "Yuelu shuyuan suo cang Qin jian zongshu" 岳麓書院所藏秦簡綜述 [A general introduction to the Qin manuscripts in the Yuelu Academy collection], *Wenwu* 3 (2009): 75-88.

demonstrated to be downright forgeries,[94] the case of the Yuelu Academy Qin manuscripts is well-supported by their codicological as well as syntactic and semantic features.[95]

The importance of these documents for the present study is defined not only by the richness of their content but also by the fact that they can be confidently dated to the imperial Qin period (221–207 BCE) on the basis of lexical evidence. For example, the Yuelu Academy texts are referring to commoners as "the black-headed ones" (*qian shou* 黔首), the term that is known to have been introduced for the use in official documents in 221 BCE.[96] In contrast, the Qin documents from Shuihudi are using the earlier term, "people" (*min* 民), and never use the new one. Another example is the official term for government offices, *gongshi* 公室 (lit. "ducal residence") before and *xianguan* 縣官 (lit. "county office") after 221 BCE.[97] The former is typical for the Shuihudi tomb no. 11 hoard, and the latter for the Yuelu texts, with no exceptions attested so far.

This leaves us with a chronological sequence of major legal text finds, Haojiaping and Shuihudi for the late Warring States, Yuelu Academy and much smaller and very fragmentary Longgang corpus for the imperial Qin, and Zhangjiashan for the beginning of Western Han. Combined with the evidence provided by other types of excavated textual sources and by the transmitted historical records, this sequence allows the tracing of the evolution of economic

[94] See, for example, Paul Goldin, "*Heng Xian* and the Problem of Studying Looted Artifacts," *Dao: A Journal of Comparative Philosophy* 12.2 (2013): 153-160.

[95] For a detailed discussion, see Ulrich Lau and Thies Staack, *Legal Practice in the Formative Stages of the Chinese Empire: An Annotated Translation of the Exemplary Qin Criminal Cases from the Yuelu Academy Collection* (Leiden and Boston: Brill, 2016), 12-13; and Korolkov, "Legal Process Unearthed: A New Source of Legal History of Early Imperial China," *Journal of the American Oriental Society* 137.2 (2017): 383-391.

[96] *Shiji*, 6.239.

[97] This lexical change is recorded on a fragmentary board from the Qianling 遷陵 County archive excavated at Liye, which lists fifty-four new terms that had to be used instead of the old ones in the official documents. See *Liye Qin jiandu*, 155-160, tablet 8-461. See You Yifei, "Liye Qin jian 8-455 hao mufang xuanshi", 87-104.

policies and social realities during the crucial decades of empire-building, roughly from the middle of the third century BCE through the early decades of the second century BCE.[98]

Until 2002, virtually all discoveries of Qin documents were made in burial sites. Not by itself challenging the value of such texts as historical source material, this circumstance invited questions about the functionality of entombed texts and, in the case of legal manuscripts, also about the relationship of the deposited texts to the actual laws. Some radical opinions suggested that all tomb texts were *mingqi* 明器 (also written as 冥器), surrogate objects especially crafted to be used as funeral inventory.[99] While legal statutes and other state-backed texts may have served the purpose of reinforcing the deceased person's status in the netherworld or manifesting his family's high standing to the attendants of funeral ceremony,[100] Enno Giele observed that "it has never been

[98] While the Zhangjiashan, Yuelu Academy and some other Qin texts can be dated with relative precision, no such dating is possible for the Shuihudi statutes, except that they pre-date 221 BCE. Some of these legal regulations may be dated back to the mid-fourth century Shang Yang reforms, while others were enacted in the very end of the Warring States era. See, for example, Kudō Motoo 工藤元男, *Shuhudi Qin jian suojian Qin dai guojia yu shehui* 睡虎地秦簡所見秦代國家與社會 [*The Qin state and society as reflected in the Qin documents from Shuihudi*] (Shanghai: Shanghai guji, 2010), 6-7.

[99] On the *mingqi*, see Pu Muzhou 蒲慕州, *Muzang yu shengsi: Zhongguo gudai zongjiao zhi xingsi* 墓葬與生死—中國古代宗教之省思 [*Burial, life, and death: Thoughts about the ancient Chinese religion*] (Taipei: Lianjing, 1993), 23. For the proposal that most if not all of the tomb texts should be understood as *mingqi*, see Cheng Zhijuan 程志娟, "*Yinwan Han mu jiandu* fanying Han dai zangsu zhong de jige wenti" 《尹灣漢墓簡牘》反映漢代葬俗中的幾個問題 [Some questions concerning the funeral customs of the Han era as reflected in the *Documents from the Han tomb at Yinwan*], in Lianyungang shi bowuguan 連雲港市博物館 and Zhongguo wenwu yanjiusuo 中國文物研究所, eds., *Yinwan Han mu jiandu zonglun* 尹灣漢墓簡牘綜論 [*A discussion of the documents from the Han tomb at Yinwan*] (Beijing: Kexue, 1999), 200-203.

[100] Deceased officials, in particular, may have aspired to receiving a position in the afterworld similar to the one they were holding while alive. For a discussion, see, for example, Liu Hongshi 劉洪石, "Qiance chutan" 遣冊初探 [A preliminary study of funeral inventories], in *Yinwan Han mu jiandu zonglun*, 121-127. For the possible public display of manuscripts in course of the burial ceremony prior to the entombment, see Michael Nylan, "Toward and Archaeology of Writing: Text, Ritual, and the Culture of Public Display in the Classical Period (475 B.C.E. – 220 C.E.)," in Martin Kern, ed., *Text and Ritual in Early China* (Seattle and London: University of Washington Press, 2005), 3-49.

conclusively shown that the principle of *mingqi* actually was or could be extended to manuscripts, especially in a way that would have called for altering or shortening texts."[101]

Yet it was not until the first excavation of a Qin administrative archive that the practical application of rules and institutions outlined in the legal texts could be properly studied. The 2002–2005 excavations of the remains of a fortified town at Liye in the mountainous north-western part of the present-day Hunan Province, dated from the late Warring States through the Han era, resulted in the largest find of Qin manuscripts up to the present time.[102] Altogether, some 37,000 wooden tablets along with a small number of bamboo slips were excavated, of which more than 17,000 bear inscriptions.[103] The excavated documents were identified as the remnants of the official archive of the Qianling County 遷陵縣 that was part of Dongting Commandery 洞庭郡, one of the administrative units established by Qin at the very end of the Warring States era in the conquered lands to the south of Yangzi. The dates mentioned in the excavated documents fall between 222 and 209 BCE, roughly coinciding with the Qin imperial period.[104]

The value of the Liye archive is defined not only by its sheer size and richness of information but also by its embeddedness in specific geographic and historical circumstances that provides for a contextualized evaluation of a local government's activities. Qianling was a small county with a tiny registered population of perhaps some 200 households, but it was part of the vast and dynamic frontier where new policies were tested in order to maintain the Qin rule over

[101] Giele, "Using Early Chinese Manuscripts as Historical Source Materials," 433.

[102] For an archaeological report on the excavations at Liye, see Hunan sheng wenwu kaogu yanjiusuo 湖南省文物考古研究所, *Liye fajue baogao* 里耶發掘報告 [*Report on the excavation of Liye*] (Changsha: Yuelu shushe, 2006).

[103] *Liye Qin jiandu*, 2.

[104] For an English-language introduction to the Qianling archive, see Yates, "The Qin Slips and Boards from Well no. 1, Liye, Hunan: A Brief Introduction to the Qin Qianling County Archive," *Early China* 35-36 (2012-2013): 291-329.

the conquered lands, improve the efficiency and reduce the costs of administrative apparatus, exploit local resources, and construct new identities for the local population and immigrants. It also provides evidence for the practical implementation of institutions long known from the legal texts.[105] Much of the present work is the case study of this unique archive informed by the awareness of the area's place in the geography of Qin empire-building.[106]

For a more general picture of Qin expansion and incorporation of conquered territories, we rely on the transmitted historical texts and material culture evidence. The former record major military campaigns, foundation of new administrative units, large-scale migrations, mobilizations, and construction projects. All these are part of the grand narrative of empire-building, in which the local situations such as that of the Qianling County are embedded. On many occasions, comparison between the transmitted and excavated texts reveals major discrepancies between the realities on the ground and their ideology-informed representations. Less often, the two groups of sources shed light on the same historical event to allow for a comprehensive reconstruction of a process, for example, the Qin campaigns to the south of Yangzi, for which very few records survived.

For most of territories that came to be parts of Qin's empire, however, there is neither grand political narrative nor detailed local documentation. Archaeologists have recently made a strong case that empire-building can be studied on the basis of material evidence that sheds light on the

[105] For a recent survey of the evidence for the use of Qin law in the Qianling archive, see Yates, "Evidence for Qin Law in the Qianling County Archive: A Preliminary Survey," *Bamboo and Silk* 1 (2018): 403-445.

[106] Apart from Liye, in 2013 archaeologists unearthed what appears to be administrative records of the Chu and Qin county of Yiyang 益陽 (present-day Yiyang Municipality, Hunan Province). These texts remain for the larger part unpublished. Eventually they may offer another case for the study of a local Qin administration, particularly, in relationship to the pre-existing administration of the state of Chu, which was established in the region prior to the Qin's arrival. See Hunan sheng wenwu kaogu yanjiusuo and Yiyang shi wenwuchu 益陽市文物處, "Hunan Yiyang Tuzishan yizhi jiuhao jing fajue jianbao" 湖南益陽兔子山遺址九號井發掘簡報 [A preliminary report on the excavation of well no. 9 at Tuzishan, Yiyang, Hunan Province], *Wenwu* 5 (2016): 32-48.

dynamics that are often overlooked or insufficiently accounted for in the texts, such as the changes in the size, distribution, and nature of settlement, adoption of new subsistence strategies, scope of exchange networks, survival of local socio-cultural identities, and distribution of imperial presence across the landscape.[107] Moreover, it is archaeological evidence that has the potential to reveal long-term social, political, and economic trajectories of various regions that are important for understanding the process of their incorporation into the empire.

7. Summary of contents

The main body of this dissertation consists of five chapters that address the key aspects of the nexus of empire-building and economic transformation in the late third century BCE against the background of longer-term socio-economic, institutional, and administrative changes associated with the political integration of continental East Asia.

Chapter 2 explores taxation in the state of Qin from the mid-Warring States period until the fall of the Qin Empire and its afterlife at the beginning of the Western Han era. The Qin fiscal regime was thoroughly reorganized during the fourth century BCE when centralized, state-wide agricultural and household taxation was established along with the systems of military levies and labor services based on household registration. A significant part of government's revenues,

[107] The archaeological survey of the Rizhao 日照 area in the east of the present-day Shandong Province, for example, suggested rapid population growth due to the arrival of new settlers, which resulted in the major economic and administrative changes, emergence of new regional centers, intensified exploitation of local resources (primarily sea salt), and so on. See Gary Feinman, Linda Nicholas, and Fang Hui, "The Imprint of China's First Emperor on the Distant Realm of Eastern Shandong," *Proceedings of the National Academy of Sciences of the United States of America*, vol. 107, no. 11 (2010): 4851-4856; and Fang, Feinman, and Nicholas, "Imperial Expansion, Public Investment, and the Long Path of History: China's Initial Political Unification and Its Aftermath," *Proceedings of the National Academy of Sciences of the United States of America*, vol. 112, no. 30 (2015): 9224-9229. For the Xiangyang 襄陽 region in the middle reaches of the Han River 漢水, see Glenda Chao, "Culture Change and Imperial Incorporation in Early China: An Archaeological Study of the Middle Han River Valley (ca. 8th century BCE – 1st century CE)," Ph.D. dissertation, Columbia University, 2017. On the use of archaeological evidence for the study of socio-political change in Qin, see Teng Mingyu, *Qin wenhua.*

moreover, derived from the extensive state economy: agricultural farms, artisanal workshops, mines, saltworks, etc., managed by state officials and worked by temporarily conscripted or permanently dependent laborers. This fiscal regime probably owed some of its features to the pre-fourth century political-economic organization of the Qin state with its traditionally strong control over labor resources. It proved itself an efficient mechanism of resource extraction and manpower mobilization during the large-scale military campaigns in the late fourth and third centuries BCE.

However, its strengths gradually turned into weaknesses toward the end of the Warring States and imperial Qin period when rapid territorial expansion inflated the costs of transporting in-kind revenues and monitoring the government's local agents. At the same time, incorporation of the eastern regions of the Zhou world with their advanced monetary economy provided powerful impetus for monetization of revenues. Reshuffling of the Qin fiscal system, which was already under way in the closing decades of the Warring States, gained momentum during the imperial period. Solutions attempted by the Qin emperors are better understood not as an encompassing reform but as piecemeal responses to specific challenges that rendered old policies increasingly unsustainable. Territorial expansion and revenue monetization also resulted in the shifting balance of interests and power between the central government and its local agents, eventually leading to even more radical transformation of the imperial taxation regime after the fall of Qin.

Chapter 3 shifts focus from the fiscal to geographic, environmental, and territorial aspects of the empire-economy nexus. It argues that the Qin expansion to the south of Yangzi signified a momentous turn in the history of the region that was integrated into the broader political, economic, and human networks of the empire and became an arena for imperial government's policies of frontier settlement, social engineering, community and identity building, extraction and redistribution of resources. At the same time, the Qin conquest was the culmination of a long

process of growing economic and social connectivity on the Middle Yangzi that can be traced back to the late fourth and third millennia BCE. During the Eastern Zhou era (771–221 BCE), the region assumed a distinct political shape as the southern state of Chu introduced regular territorial administration, organized defense, levied local populations for labor and military services, and taxed trade. When the Qin armies destroyed the Chu state in 222 BCE, they took over the region with a long tradition of economic connectivity and a more recent one of centralized administrative control.

The chapter proceeds to explore the aspects of Qin's territorial administration and economy management to the south of Middle Yangzi within the broader framework of the empire's territorial and economic strategies that unfolded against the background of the region's natural and economic environment. Starting with the discussion of the official policies of structuring heterogenous imperial territory, the chapter zooms in on the empire's southern frontier, its administrative organization, and challenges the imperial government faced dealing with the "friction of terrain," local unrest and insurgency, and the permanent presence of large and unruly populations outside the state's control. Finally, almost half of the chapter is devoted to the detailed case study of the best documented administrative unit of the Qin Empire, Qianling County, that offers an unprecedentedly detailed picture of empire-building and resource management at the local level.

Chapter 4 considers one of the most salient features of the Qin model of surplus extraction, which had enormous ramifications for its socio-economic organization and expansion policies, the unfree labor system, particularly, that of the convict labor. Temporarily or permanently unfree groups constituted a very large though uncertain proportion of the empire's population; in the frontier areas such as Qianling, they probably surpassed local registered residents in both numbers

and value for the state projects of agricultural expansion, resource exploitation, infrastructure building, administrative communication, and so on. Specific legal characteristics of the Qin forced labor regime, moreover, blurred the distinction between convict and slave statuses, facilitated transfer between state and private forms of personal dependency, and increased spillover effects upon the private economy. Labor management in the Qin Empire provides a convenient case for exploring the interplay between the command and the market modalities of resource mobilization.

The chapter offers an overview of the economic, institutional, and sociopolitical conditions in the historical systems of compulsory labor, to provide for a comparative view of the unfree labor regime in Qin. Then I explore the legal and administrative aspects of this regime, many of which have been revealed recently with the discovery and publication of Qin manuscripts. As in the previous chapters, the Qianling administrative archive allows a close-up look at the frontier situation where compulsion was instrumental not only in the domain of hard physical labor but also in mobilizing military force and even administrative expertise. Finally, the chapter analyzes interstitial developments within the Qin system of unfree labor, particularly monetization of the economy and the drive toward improving the financial efficiency of labor resources under the government's control, which contributed to the commodification of labor and formation of markets for labor well-attested in the subsequent Han period.

Chapter 5 discusses the long-distance transfers of resources, goods, and people. Expansion of geographic horizons of economic interaction and intensification of interregional trade are the aspects of economic change where the impact of empires is believed to be most articulated. The Qin government sought to control the physical mobility of its subjects and resources by directing them into desirable channels and restricting unwanted moves. In course of recent decades, archaeological discoveries have revealed not only impressive state investment into the physical

infrastructure of mobility such as the network of imperial highways, canals, relay stations, and guard posts along the transportation routes, but also the government-sponsored "intellectual infrastructure" of mobility that built upon existing geographic knowledge and cartographic expertise to outline, publicize, and routinize communication routes across the subcontinent.

Excavated texts also shed light on the previously unknown aspects of the integration of economic and humanitarian space within the empire. Regular waterborne transportation of grain from the Yangzi basin to the metropolitan regions in North China was formerly believed to be all but nonexistent until the construction of the Grand Canal in late sixth century CE. However, such transportation was recently attested for the imperial Qin period when the route of grain shipment was developed along the Han River system augmented by man-made canals and overland roads. Regular transfers of government personnel and state-organized migrations also contributed to the economic integration in a number of significant ways. The imperial connectivity remained fragile and suffered setbacks when the physical and intellectual infrastructures of communication shrank or collapsed with the decline and fall of the central government's power. But the shared sphere of geographic mobility essential for the formation of the imperial economy, society, and culture tended to regenerate itself after the periods of contraction or disruption. It should be considered an important factor in the resilience of centripetal trends in China's political history.

Chapter 6 utilizes the Qianling archive materials to study the relationship between the state and private economies. The ideologists of state-strengthening reforms in mid-fourth century BCE Qin cherished the idea that the latter should be completely subsumed under the governmental dirigisme. Their policies enjoyed some initial success, yet by the end of the Warring States period and especially under the Qin Empire, the pattern of engagement between the state and the private economy changed significantly. The Qin officials increasingly recognized the autonomy of private

markets and their own inability to substitute for the latter with distributive schemes. In its engagement with private economic actors, the government was primarily guided by considerations of taxation and procurement of resources; cost-reduction in the state economy; and maintenance of public order through delineation of rights and obligations.

The transaction costs perspective is applied in the analysis of the economic impact of state authentication of property rights, particularly land titles, which was part of the major change in land tenure and land taxation regimes in the wake of the imperial "unification"; and official authorization of property transfers. Excavated administrative documents and legal statutes from the imperial Qin period also attest to the momentous changes in the official regulation of trade, price management, and local government's procurement practices, which point at the government's reorientation from directly operating production and distribution to engagement with private markets. Simultaneously, the state officials started to assume the role of entrepreneurs, making (often illegal) use of their superior access to information in order to make private gains. Transformation of the state economy, its increasing exposure to private markets, and the expansion of the latter, often caused by the state demand for materials and manpower, were powerfully facilitated by the monetization of the frontier region attested by the textual and archaeological evidence.

The concluding Chapter 7 summarizes the mutually constitutive relationships between empire-building and economic change in the Qin Empire; traces the development of economic and institutional changes, which become observable during the Qin imperial period, in the subsequent Han era; and formulates some general patterns of the state-economy relationship that may be of use in the comparative study of imperial economic systems

Chapter 2 : Strategies of conquest and resource extraction in the state and empire of Qin, mid-fourth to late third century BCE

When viewed retrospectively, the wars the state of Qin waged against its southern rival Chu stand out as one of the most important processes in the political history of China. These wars culminated in the conquest of the Chu capital in 279–278 BCE and were accompanied by a number of ancillary campaigns, most noticeably the occupation of the Sichuan Basin. For the first time in China's history, a polity based in the Yellow River basin succeeded in conquering a substantial part of the Yangzi valley, thus establishing an enduring pattern for empire building in continental East Asia. In fact, control over these two macroregions became a hallmark of an imperial regime,[1] and no emperor henceforth perceived his status unchallenged until he achieved this goal. The conquest of the south shaped both the idea of imperial territoriality and institutions for maintaining control over the land, its people, and its resources.

[1] Here I use the term "macroregion" simply to indicate two very large territorial units, the Yellow River and the Yangzi basins, that surpassed smaller physiographic regions such as the Sichuan Basin, Wei River valley (Guanzhong) and so on. This is different from the use of the same term in William Skinner's analysis of marketing structures in late imperial China, for which see Skinner, "Regional Urbanization in Nineteenth Cenutry China" and "Cities and Hierarchy of Local Systems," in Skinner, ed., *The City in Late Imperial China* (Stanford: Stanford University Press, 1977), 211-252, 275-352. Anthony Barbieri-Low argued for the applicability of the analyzis in terms of skinnerian economic macroregions to the Han Empire, where he identified six macroregions: capital macroregion (Guanzhong and Luoyi Basin), Sichuan Basin, Qi-Lu macroregion (lower reaches of the Yellow River and Shandong Peninsula), Nanyang macroregion (Nanyang Basin), Yangzi macroregion (middle and lower reaches of the Yangzi River), and Lingnan. See Barbieri-Low, *Artisans in Early Imperial China* (Seattle and London: Washington University Press, 2007), 118-121. The term is also used by Guo Jue in her study of the "Greater Hanshui Region", which she subdivides into two macroregions, Hanxi 漢西 (to the west of Han River) and Handong 漢東 (to the east of Han River). See Guo Jue, *Becoming Chu: A Deep History of Identity Formation in Early China* (forthcoming). It is clear that there is no uniformity in the use of this term by the Early China scholars.

This chapter explores the geographical and logistical rationales for the campaigns that brought Qin armies to the Middle Yangzi and paved the way for further advances to the south of the river. I argue that the Qin developed its key fiscal institutions as solutions to the problems of military procurement and control over conquered territories. Dictated by specific traditions of resource extraction and Qin's lag in adopting some major economic innovations of the late Spring and Autumn (770–453 BCE) and early Warring States era, its taxation system proved efficient in financing warfare and determined the relationship between the central government and its local agents who by the time of the imperial "unification" were organized in a complex bureaucratic apparatus that managed extraction of resources and labor from the general populace. The successes and failings of the Qin fiscal model influenced later imperial approaches to economic and territorial management and placed at the heart of imperial politics the interest balance between the central government, regional bureaucracy, and local elites in the process of fiscal redistribution.

1. The Qin conquest of the South

The Qin conquest of the south consisted of a series of military campaigns to the south of the Qinling mountain range that formed the natural southern border of the Wei 渭 River basin, or Guanzhong 關中 ("Within the Passes"), the heartland of the Qin polity. These campaigns started in the mid-fourth century BCE and eventually brought the Qin armies to the Yangzi River basin where they fought one of the major contenders for hegemony in the Warring States world, the state of Chu.

The most intense fighting took place between 312 and 278 BCE when the Qin advanced in two directions: to the south-west into the Chengdu Plain (Sichuan) against the polities of Shu 蜀 and Ba 巴, and to the south-east along the course of the Han 漢 River toward the core region of

Chu at the confluence of the Han and Yangzi Rivers. The Qin conquest of this area in 280–278 BCE and the consolidation of Qin control over the entire course of the Han River created conditions for expansion to the south of the Yangzi and the political unification of the Yellow and Yangzi River basins. While the conquest of Sichuan was completed within one year (even though pacification of the region took another thirty years), the military competition between the states of Qin and Chu in the Han basin lasted considerably longer and has only recently begun to be viewed as a continuous process with its own logic defined by geography and military logistics.[2] Reconstructing this process is important for understanding the Qin's advance to the south of the Yangzi, the methods of managing conquered territories, and the role of the vast southern frontier in the administrative and economic architecture of the empire.

This section, first, surveys the military history of Qin's southward expansion and, second, presents evidence on the Qin colonization in the conquered regions, which, as already discussed in the Introduction, was the key strategy for establishing control over the resources. The impact of military strategy and procurement on the fiscal organization of the empire is analyzed in the next section. I primarily focus on the Han River basin, but the broader geography of Qin colonization is also addressed as it sheds light on the background of the dramatic territorial expansion of Qin during the final decade before 221 BCE and the challenges this expansion presented for the Qin system of resource extraction.

[2] See Sun Wenbo 孫聞博, "Qin ju Hanshui yu Nan-jun zhi zhi - yi junshi jiaotong yu zaoqi junzhi wei shijiao de kaocha" 秦據漢水與南郡之置－以軍事交通與早期郡制為視角的考察 [Qin control over the Han River basin and the establishment of Nan Commandery – A study of military transportation and the early stages of the commandery administrative regime], in Zeng Lei 曾磊, Sun Wenbo, Xu Chang 徐暢 and Li Lanfang 李蘭芳, eds., *Feiling guanglu: Zhongguo gudai jiaotong shi lunji* 飛軨廣路：中國古代交通史論集 [*Flying bells and wide roads: Collected studies in the ancient history of transportation in China*] (Beijing: Zhongguo shehui kexueyuan, 2015), 42-66. The new archaeological evidence for the cultural change in the middle Han River basin after its conquest by the Qin in the late fourth and early third century BCE has recently been studied by Glenda Chao in her doctoral dissertation "Culture Change and Imperial Incorporation in Early China."

1.1. Campaigns against the state of Chu (mid-fourth century to 221 BCE)

Campaigns in the Han River basin, 340–290 BCE

The Qinling Mountains never presented an impenetrable obstacle for the contacts between the inhabitants of the Wei River valley and their neighbors to the south and southeast. In the eastern part of the valley, the ten kilometer-long Lantian 藍田 corridor connects the upper reaches of the Ba 灞 River, a southern tributary of the Wei, to the Dan 丹 River that is part of the Han River system. With its valley reaching fifteen to twenty kilometers in width and with its rich deposits of valuable stones, including jade, the Dan basin had been dotted with settlements since Neolithic times.[3] Archaeological remains associated with the "Chu culture" and dating from the Spring and Autumn and the early Warring States were discovered in the upper reaches of the Dan River.[4] Control over the area presented the possibility to launch an invasion of Guanzhong from the upper reaches of the Dan River (present-day Danfeng 丹鳳 and Shangzhou 商州 counties of Shangluo 商洛 Municipality, Shaanxi Province, see Map 2.1).[5]

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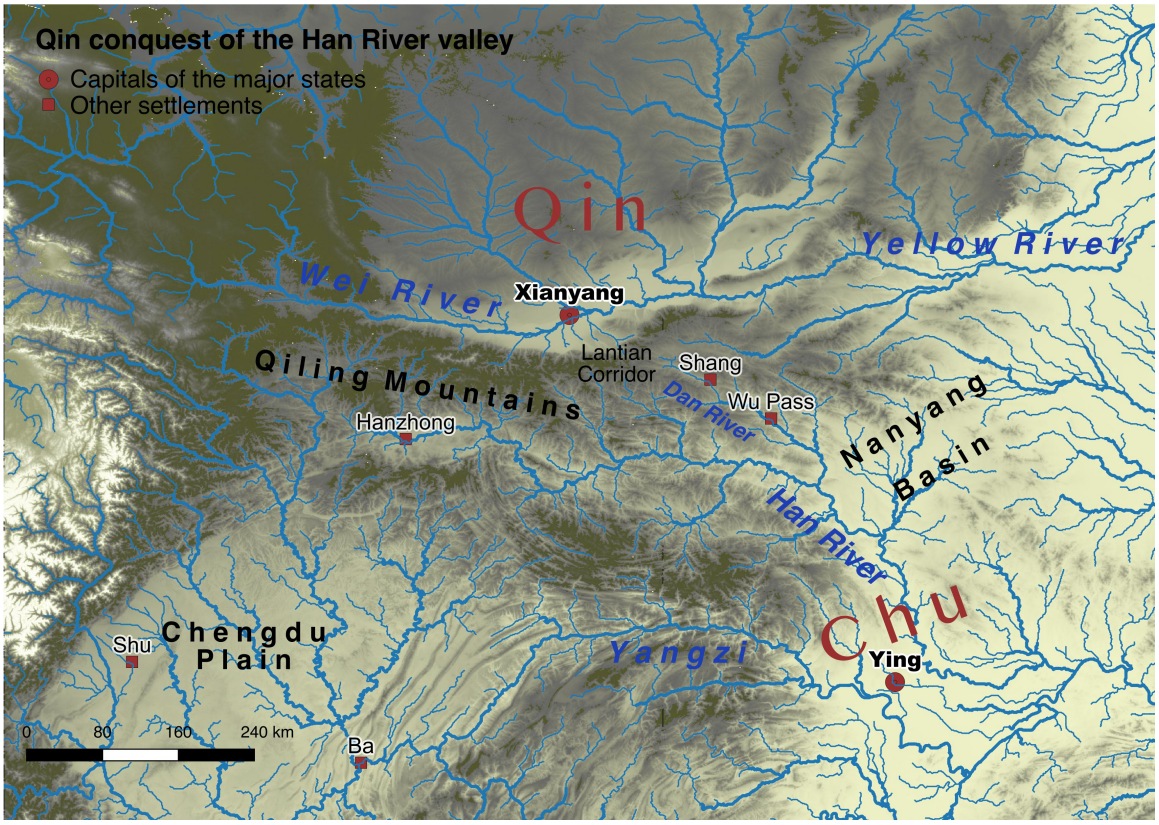
[3] For the Neolithic settlement and production sites in the upper Dan River basin, see *Zhongguo wenwu ditu ji. Shaanxi fence* 中國文物地圖集。陝西分冊 [*Atlas of cultural relics of China. Shaanxi volume*], vols. 1, 2, ed. Guojia wenwuju 國家文物局 (Xi'an: Xi'an ditu, 1998), vol. 1, 350-363; vol. 2, 1167-1223. A personal visit to Danfeng and Shangzhou in April 2017 allowed me to appreciate the density of the local archaeological landscape. Although no systematic archaeological survey of the river valley has so far been undertaken, the Neolithic ceramic deposits are visible at multiple sites of ongoing construction works. Many of these remain unreported, in spite of the area surveys conducted by the local archaeologists.

[4] Yang Yachang 楊亞長 and Wang Changfu 王昌富, "Shaanxi Danfeng xian Qin Shang yi yizhi" 陝西丹鳳縣秦商邑遺址 [The remains of the Qin town of Shang in Danfeng County, Shaanxi Province], *Kaogu* 3 (2006): 32-38. For the topography of the Lantian Gorge and the upper Dan River valley, see Bai Yang 白洋, "Zhanguo Qin Han Wuguan dao junshi dili lunshu" 戰國秦漢武關道軍事地理論述 [A description of the military geography of the Wu Pass road during the Warring States, Qin, and Han eras], M.A. thesis, Capital Normal University, 2011, 4-5.

[5] Historically, control over the valleys of the major northern and southern tributaries of the Wei River was central to the military defense of the Guanzhong region. The ultimate failure of the Western Zhou state to prevent its northern enemies, the *Xianyun* 獫狁, from establishing their bases along the northern tributaries of the Wei, particularly, the



Map 2.1: Qin conquest of the Han River valley

The circumstances of the Qin's arrival in this region at some point before the mid-fourth century BCE remain unclear. Our two main sources for the Qin-Chu relationship, the "Basic Annals of Qin" (*Qin benji* 秦本紀) and the "Ancestral House of Chu" (*Chu shijia* 楚世家) in the *The Grand Scribe's Records* (*Shiji*), contain no mention of a military collision between the two powers during the early Warring States period until 340 BCE, by which time the upper Dan valley with its town of Shang 商 had already become Qin territory and the border between Qin and Chu

Jing 涇 River, was one of the key strategic factors in the fall of the Western Zhou. For a detailed geographic analysis of the Zhou-*Xianyun* wars, see Li Feng, *Landscape and Power*, 141-192.

was established at the Wu Pass 武關 on the eastern bank of the river (see Illustration 2.1[6]).[7] It was in this area that the paramount Qin statesman and military commander Gongsun Yang 公孫鞅 (also known as Wei Yang 衛鞅 or Shang Yang 商鞅, d. 338 BCE) was enfeoffed as the Lord of Shang 商君 in 340 BCE,[8] around the time when the first Qin incursions into the lands of Chu are recorded.[9] This enfeoffment of Shang Yang possibly had to do with the consolidation of the Qin control in the region adjacent to the new war theater.[10] A year-marking event notation in the records on divination and sacrifice excavated from the Chu tomb no. 1 at Tianxingguan 天星觀 (Jiangling 江陵 County, Hubei Province) suggests that Shang Yang was involved in diplomatic negotiations between Qin and Chu prior to his enfeoffment.[11]

[6] Source: photographs by the author, April 2017.

[7] On the geographical location and archaeology of the Wu Pass, see Wang Zijin, "Wu-hou" wadang yu Zhanguo Qin Han Wuguan dao jiaotong" "武侯"瓦當與戰國秦漢武關道交通 [The "Wu-hou" roof tile and transportation along the Wu Pass road during the Warring States, Qin, and Han eras], *Wenbo* 文博 6 (2013): 23-26.

[8] *Shiji*, 5.204.

[9] *Shiji*, 40.2062.

[10] Some scholars conjecture that Qin came to control the upper Dan River valley as the result of its conflict with Chu in the 340-s BCE, and the enfeoffment of Gongsun Yang in Shang was a means to solidify Qin's grip on this strategically important route into the Han River basin, see Sun Wenbo, "Qin ju Hanshui yu Nan-jun zhi zhi," 45-47.

[11] The notation refers to the visit to the Chu royal capital by Gongsun Yang, an envoy from the state of Qin 秦客公孫紻（鞅）. This was considered such an event important enough to be used as a notation for the year when the visit took place, presumably before Gongsun Yang became the Lord of Shang in 340 BCE. See Xu Daosheng 許道勝, "Tianxingguan 1 hao Chu mu bushi daoci jian shiwen jiaozheng" 天星觀 1 號楚墓卜筮禱祠簡釋文校正 [Revised transcription of the divination and sacrifice records from the Chu tomb no. 1 at Tianxingguan], *Hunan daxue xuebao (shehui kexue ban)* 湖南大學學報（社會科學版） 22.3 (2008): 8-14. I am grateful to Guo Jue 郭玨 for bringing these records to my attention.

Illustration 2.1: The Dan River valley at the Wu Pass (view from the eastern bank) and the remains of Qin fortifications

The next record of warfare between Qin and Chu dates from 318 BCE when Chu participated in the anti-Qin coalition.[12] No details of this conflict are preserved in the *Shiji*, but it paved the way to a series of wars by the Qin against Chu along the Han River. These campaigns shifted the frontier downstream to remove the Chu threat to Guanzhong, which persisted as long as the Chu forces maintained a presence in the Dan River valley. Before advancing against the Chu, the Qin armies established a stronghold in the Sichuan Basin in 316 BCE, the move that ancient as well as modern historians see as a prologue to further campaigns against the Chu. The conquest of Sichuan not only brought the rich agricultural and natural resources of the Chengdu Plain under the Qin control but also opened a new route for the invasion of Chu along the Yangzi River (see Map 2.2).[13] Over the next three years, Qin diplomats worked to build up an anti-Chu

[12] *Shiji*, 15.731, 40.2064.

[13] For the Qin conquest of Sichuan, see *Shiji*, 5. 207. For the strategic role of Sichuan in Qin's campaigns against Chu, see *Shiji* 70.2769; Yang Kuan, *Zhanguo shi*, 354-355, 402-405; Steven Sage, *Ancient Sichuan*, 145-146.

coalition and disrupt Chu's own system of alliances in preparation for a decisive military encounter.[14]

The war broke out in 312 BCE with an attempted Chu invasion of Guanzhong along the Dan River valley and the Lantian corridor.[15] Even though the Chu force was defeated, this campaign revealed the relative vulnerability of the Qin heartland for Chu incursion unless the Qin consolidated control over its possessions in the upper Han basin. To do so, soon after the war, the Qin established the Hanzhong 漢中 Commandery in the upper reaches of the Han River. Apart from coordinating the military effort against the Chu, the new military-administrative center was probably also designed to guard access to the recently acquired lands in Sichuan.[16]

Temporarily halted by the peace treaty of 304 BCE, the Qin-Chu hostilities renewed in 301 BCE when Chu purportedly supported the uprising against Qin rule in Sichuan.[17] The 299–298 BCE campaign along the Han River valley saw the Qin armies advancing southward from the confluence of the Han and Dan Rivers as far as the Chu capital region in the lower reaches of the Han River.[18] The next round of warfare followed in 292 BCE when the Qin troops under the

[14] These diplomatic maneuvers are primarily associated with the name of the famous Qin strategist Zhang Yi 張儀 (d. 309 B.C.), see *Shiji* 5.207, 70.2768-2779; *Zhanguo ce jianzheng* 戰國策箋證 [*Compiled annotations to the* Stratagems of the Warring States] (Shanghai: Shanghai guji, 2006), 4.230-238.

[15] *Shiji*, 40.2066.

[16] *Shiji*, 5.207. For the geography of Hanzhong Commandery, see Zhou Zhenhe 周振鶴 and Li Xiaojie 李曉杰, *Zhongguo xingzheng quhua tongshi: zonglun, xian Qin juan* 中國行政區劃通史：總論、先秦卷 [*History of administrative divisions in China: introduction, pre-Qin period*] (Shanghai: Fudan daxue, 2009), 415.

[17] The *Shiji* report on the uprising in the Qin-controlled Sichuan princedom of Shu is followed by the record of Qin's war on Chu that killed 20,000 Chu troops, see *Shiji* 5.210.

[18] The Qin army is reported to have captured the settlement of Xinshi 新市 ("New Market") some 150 km to the north-east of the Chu capital of Ying 郢, see *Shiji*, 5.210; for the location of Xinshi, see Tan Qixiang 譚其驤, ed. *Zhongguo lishi dituji* 中國歷史地圖集 [*Historical atlas of China*], vol. 1: Yuanshi shehui, Xia, Shang, Xi Zhou, Chunqiu, Zhanguo shiqi 原始社會、夏、商、西周、春秋、戰國時期 [Prehistoric society, Xia, Shang, Western Zhou, Spring and Autumn, and Warring States periods] (Beijing: Zhongguo ditu, 1996), 45-46. It remains unclear whether the Qin

command of Bai Qi 白起 (d. 257 BCE) scored another major victory against the Chu and conquered the western part of the fertile Nanyang 南陽 Basin to the east of the Han River, thereby securing undisputed control over the Dan basin and the north-eastern tributaries of the Han, the Tuan 湍 and Bi 泚 Rivers.[19] This provided Qin armies with an additional supply line in their campaigns against Chu in the Han River valley. The conquest was cemented by the enfeoffment of three members of the Qin ruling family in the Nanyang basin.[20]

Conquest of the Chu capital area, 280–276 BCE

The campaign of the Qin generals Bai Qi and Sima Cuo 司馬錯 in 280–278 BCE resulted in the conquest of the Chu capital region to the north of the Middle Yangzi and relocation of the Chu court northeastwards to the Huai River basin. This was achieved through a coordinated two-pronged assault by the Qin armies that advanced simultaneously down the Han River and from Sichuan. The campaign culminated in the sack of the Chu capital Ying and the foundation of the Nan 南 ("Southern") Commandery of Qin to the north of Yangzi.[21]

established permanent control over this settlement or if it marked the furthermost point of their incursion into Chu territories.

[19] *Shiji*, 5.212.

[20] King Zhaoxiang's 昭襄 (306–251 BCE) brothers princes Shi 市 and Kui 悝 were enfeoffed, respectively, in Wan 宛 that eventually became the capital of Nanyang Commandery, and Deng 鄧, a strategically important town at the confluence of the Han and Bi Rivers, see *Shiji*, 5.212. The king's maternal uncle, Wei Ran 魏冉 (d. 271 BCE), was enfeoffed at Rang 穰, a settlement on the western bank of the Tuan River, see *Shiji*, 72.2325. See also *Zhongguo lishi dituji*, vol. 1, 45-46. For the archaeological evidence on the Qin's conquest of the Deng area and its impact on the material culture of the local population, see Chao, "Culture Change and Imperial Incorporation in Early China," 268-292.

[21] The events of the campaign are conveyed in *Shiji*, 5.213, 73.2331. See also Yang Kuan, *Zhanguo shi*, 402-405.

Efforts to extend conquest to the south of the Yangzi ended in failure. While the Qin took over the Chu territories in the Three Gorges that connected Sichuan to the Middle Yangzi, the southward offensive was prevented by local resistance and the Chu counteroffensive. After a brief period of Qin occupation in 277 BCE, Chu control was reestablished over the western part of the present-day Hunan Province, and in the following year the Chu armies reconquered more territories along the Yangzi River.[22] This setback can be explained by Chu's success in establishing an efficient administration in the valleys of the Xiang 湘 and Yuan 沅 rivers, the two major southern tributaries of the Middle Yangzi (see Chapter 3 for a detailed discussion). Starting from the mid-Warring States period, this region experienced a large influx of Chu settlers that was further accelerated by the Qin conquests.[23]

The campaigns of 280–277 BCE shaped Qin's southern frontier along the Middle Yangzi for the next fifty years. Nan Commandery became the bulwark against the remaining Chu forces to the south of Yangzi. While frontier clashes between Qin and Chu continued during the following decades, neither side achieved significant territorial gains until the closing years of the Warring States when Qin embarked on the final series of conquest campaigns.[24]

[22] *Shiji*, 5.213-216, 15.742-743, 40.1735.

[23] For the Chu immigration to the Xiang River valley, see Lothar von Falkenhausen, *Chinese Society in the Age of Confucius (1000-250 BC): The Archaeological Evidence* (Los Angeles: Cotsen Institute of Archaeology, University of California, Los Angeles, 2006), 285-286. For the Chu policy of enfeoffment to consolidate control to the south of Yangzi in the late Warring States period, see Zheng Wei 鄭威, *Chu guo fengjun yanjiu* 楚國封君研究 [*A study of the enfeoffed lords in the state of Chu*] (Wuhan: Hubei jiaoyu, 2012), 213-215.

[24] In 262 BCE, Qin was able to conquer from Chu the settlement of Zhou 州 to the east of the Yunmeng Marshes that constituted the eastern border of Nan Commandery, see *Shiji*, 15.746.

Conquest of Chu, 224–223 BCE

The Qin campaigns of unification commenced in 230 BCE with the elimination of the state of Han and were completed after the surrender of its last remaining Warring States rivals, the state of Qi, in 221 BCE. The conquest of Chu in 224–222 BCE was the central episode of these campaigns. It was accompanied through the largest mobilization of Qin troops recorded in transmitted sources.[25] The campaign was primarily directed against the new Chu core to the north of the Huai River. The fall of its capital Shouchun 壽春 in 223 BCE and the disintegration of Chu power facilitated Qin expansion to the south of the Yangzi, which was achieved within a surprisingly short period of time. In 222 BCE, Qin was already in possession of many if not all former Chu administrative centers along the southern tributaries of the Yangzi.[26] These vast new territories along with other conquests of the final pre-unification decade were officially called the "new territories" (*xin di* 新地).[27] Incorporation of the enormous new frontier and its resources into the centralized empire became a major challenge for the Qin authorities as it demanded thorough

[25] *Shiji* reports that after the initial setback in its campaign against Chu, Qin mobilized six hundred thousand troops under the command of its veteran general Wang Jian 王翦 who eventually succeeded in capturing the Chu capital, forcing the Chu king into surrender, and destroying the state in 223 BCE, see *Shiji*, 6.234, 73.2339-2341. For the extraordinary scale of this final military mobilization of the Warring States era, see Miyake Kiyoshi 宮宅潔, "Qin guo zhanyi shi yu yuanzheng jun de goucheng" 秦國戰役史與遠征軍的構成 [The military history of Qin and the composition of expeditionary armies]. *Jianbo* 11 (2015): 153-170.

[26] Documents excavated from the remains of the Qin county town of Qianling indicate that two commanderies, Cangwu 蒼梧 and Dongting 洞庭, were conquered by Qin in 222 BCE, which is also the year from which the earliest of the Qianling archival documents is dated, suggesting the arrival of Qin officials in the area in this year or shortly before. See *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759.

[27] See, for example, *Liye Qin jiandu*, vol. 1, 343, tablet 8-1516; *Qin jiandu heji*, vol. 2, 599 (a letter on wooden tablet no. 6 by a Qin soldier dated from 223 BCE or soon thereafter and excavated from tomb no. 4 at Shuihudi 睡虎地, Jingzhou 荊州 Municipality, Hubei Province). For the meaning and use of the term "new lands" in Qin and Han texts, see Sun Wenbo, "Qin Han diguo "xin di" yu xi, shu de tuixing – jianlun Qin Han shiqi de neiwai guannian yu neiwai zhengce tezheng" 秦漢帝國"新地"與徙、戍的推行 — 兼論秦漢時期的內外觀念與內外政策特徵 ["New lands" in the Qin and Han empires and the promulgation of resettlement and frontier service – to the discussion of the notion of "inner" and "outer" and related policies during the Qin and Han periods], *Gudai wenming* 古代文明 9.2 (2015): 65-73.

revision of the existing mechanisms of resource management, revenue extraction, and bureaucratic organization, in other words, a general revision of the institutions of the "warring state" that had taken shape over the preceding century.

1.2. Qin colonization

During the mid- and late Warring States period, the Qin state resorted to large-scale resettlement and colonization projects to consolidate its control over the conquered territories. The fiscal aspects of these policies and their implications for the nature of territorial and resource control in the Qin Empire are addressed in more detail in the following section. Here I briefly overview the transmitted textual and archaeological evidence for the Qin colonization in the Han River basin and other regions in the late fourth and third centuries BCE.

Qin colonization in the Han River valley: textual and archaeological evidence

Scarce and brief as they are, transmitted records of the Qin settlement activities in the Han River basin point at their relationship with the war effort against Chu. Two settlement campaigns were carried out in the western part of the Nanyang Basin in 281 and 280 BCE. In both cases, amnestied criminals were exiled to this region. Qin colonists settled along the course of the Tuan River and at the confluence of the Bi and Han Rivers, suggesting that the new settlements were intended to boost agricultural production along the main transportation routes into the Han valley where the Qin armies were preparing to launch a major campaign towards the Chu capital.[28] In

[28] *Shiji*, 5.213. In 281, Qin colonists were settled at Rang where a prominent Qin statesman Wei Rang was recently enfeoffed (see previous section). While the *Shiji* text does not specify the location of the 280 BCE settlement, the Tang commentator Zhang Shoujie 張守節 (8th century CE) explains that this was carried out in the Deng area at the confluence of Han and Bi rivers, see *Shiji*, 5.215, n. 18.

279–278 BCE, immediately after the fall of the Chu capital, another wave of colonization was directed at the former Chu metropolitan region. As in the previous cases, amnestied criminals were deployed as settlers.[29] Resettlements were also carried out within the Han basin where in 273 BCE manumitted slaves (*mian chen* 免臣) from Nanyang were moved to the newly established Shangyong 上庸 Commandery to the south of the Han River.[30]

Archaeological evidence corroborates these records.[31] In the upper reaches of the Dan River, archaeologists excavated the supposed location of the Warring States town of Shang in 1996. The change in the composition and style of the ceramic assemblages at this site suggests that the area belonged to the Chu cultural sphere prior to the mid-Warring States (late fifth and fourth centuries BCE) and experienced an influx of population that was using the Qin material culture in the second half of the fourth century. This matches the transmitted record of Gongsun Yang's enfeoffment in Shang in 340 BCE.[32] A cemetery of 72 tombs with pronounced features of the "Chu culture" was excavated near this settlement. The cemetery was used during the late Spring and Autumn through early Warring States period, with the latest burials dated to mid-Warring States, after which it was discontinued.[33]

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[29] *Shiji*, 5.213.

[30] Ibid.

[31] The author is aware of the theoretical and methodological controvercies concerning the use of archaeological evidence in conjunction with transmitted written materials, yet in the present case both lines of evidence appear to corroborate each other to a surprising degree. For a discussion of the methodologies for the use of various lines of evidence in the study of historical geography, see Li Feng, "The Study of Western Zhou History: A Response and a Methodological Explication," *Early China* 33-34 (2010-2011): 287-306.

[32] Yang Yachang and Wang Changfu, "Shanxi Danfeng xian Qin Shang yi yizhi," 229-230.

[33] Shaanxi sheng kaogu yanjiusuo 陝西省考古研究所 and Shangluo shi bowuguan 商洛市博物館, *Danfeng gucheng Chu mu* 丹鳳古城楚墓 [*Chu tombs in the area of the ancient city of Dancheng*] (Xi'an: San Qin, 2006), 155-166.

Excavation of cemeteries to the north of the modern city of Xiangyang 襄陽 (north-western Hubei Province), where the Warring States town of Deng was located at the confluence of the Han and Bi Rivers, identified 173 tombs dating from the Spring and Autumn to the Eastern Han period (25–220 CE), of which 99 belonged to the late Warring States and imperial Qin (221–207 BCE) periods. In contrast to the earlier burials, the funeral ceramic assemblages in these tombs include vessels associated with the mainstream Qin material culture of the Wei River basin, while the tomb structure features such typical traits of the Qin ritual as waist pits and catacomb niches at the bottom part of burial pits.[34] As in the case of upper Dan valley, archaeological dating of the Qin arrival corroborates transmitted records about the colonization in the Nanyang basin starting from the late 280-s BCE. Moreover, the sudden and massive appearance of the Qin material culture suggests it was the outcome of a state-coordinated effort rather than gradual migration and/or cultural fusion.[35]

During the late Warring States period, a large number of typical "Qin culture" burials organized in compact cemeteries appear in the former Chu capital region at the confluence of the Han and Yangzi Rivers, while the number of tombs with the local Chu features decreases abruptly.[36] Manuscripts on the bamboo and wooden slips excavated from some Qin tombs,

[34] Hubei sheng wenwu kaogu yanjiusuo 湖北省文物考古研究所, Xiangfan shi kaogudui 襄樊市考古隊, Xiangyang qu wenwu guanlichu 襄陽區文物管理處, *Xiangyang Wangpo Dong Zhou Qin Han mu* 襄陽王坡東周秦漢墓 [*Eastern Zhou, Qin, and Han period tombs at Wangpo, Xiangyang Municipality*] (Beijing: Kexue, 2005), 64-217.

[35] The sudden arrival of the Qin material culture around the town of Deng was accompanied what Glenda Chao calls "cultural pushback and local identity assertion" on the part of the local population that remained in the area, see Chao, "Culture Change and Imperial Incorporation in Early China," 281.

[36] See Zhao Huacheng 趙化成, "Qin tongyi qianhou Qin wenhua yu lieguo wenhua de pengzhuang ji ronghe" 秦統一前後秦文化與列國文化的碰撞及融合 [Conflict and fusion of Qin and other states' cultures before and after the Qin unification], in Su Bai 宿白, ed., *Su Bingqi yu dangdai Zhongguo kaoguxue* 蘇秉琦與當代中國考古學 [*Su Bingqi and contemporary Chinese archaeology*] (Beijing: Kexue, 2001), 625; Teng Mingyu, *Qin wenhua*, 130-133.

particularly around the town of Jiangling 江陵, the largest settlement and the seat of Nan Commandery, suggest that the Qin colonists included officials, soldiers, and convicted criminals who were often relocated along with their families.[37]

In the absence of any meaningful population numbers for the Han River valley during the Warring States period, it is difficult to assess the scale of Qin colonization and its impact on the composition of the local population. However, evidence from other regions (see below) as well as the rapid decrease in the number of local "Chu culture" burials accompanied by the massive appearance of the Qin cemeteries in the late Warring States indicate that at least in some strategically important areas the Qin state replaced the local population with colonists to a considerable degree.

Other regions of Qin colonization: east of the Yellow River, Sanmenxia, Sichuan

Evidence for the Qin colonization activity comes from the three regions conquered by the Qin armies during the mid- and late Warring States period: the alluvial plains to the east of the lower course of the Ordos Loop of the Yellow River; the Sanmenxia area where the Yellow River enters the Great Plain; and the Chengdu Plain in Sichuan along with the routes connecting it to the Qin heartland in the Wei River basin.

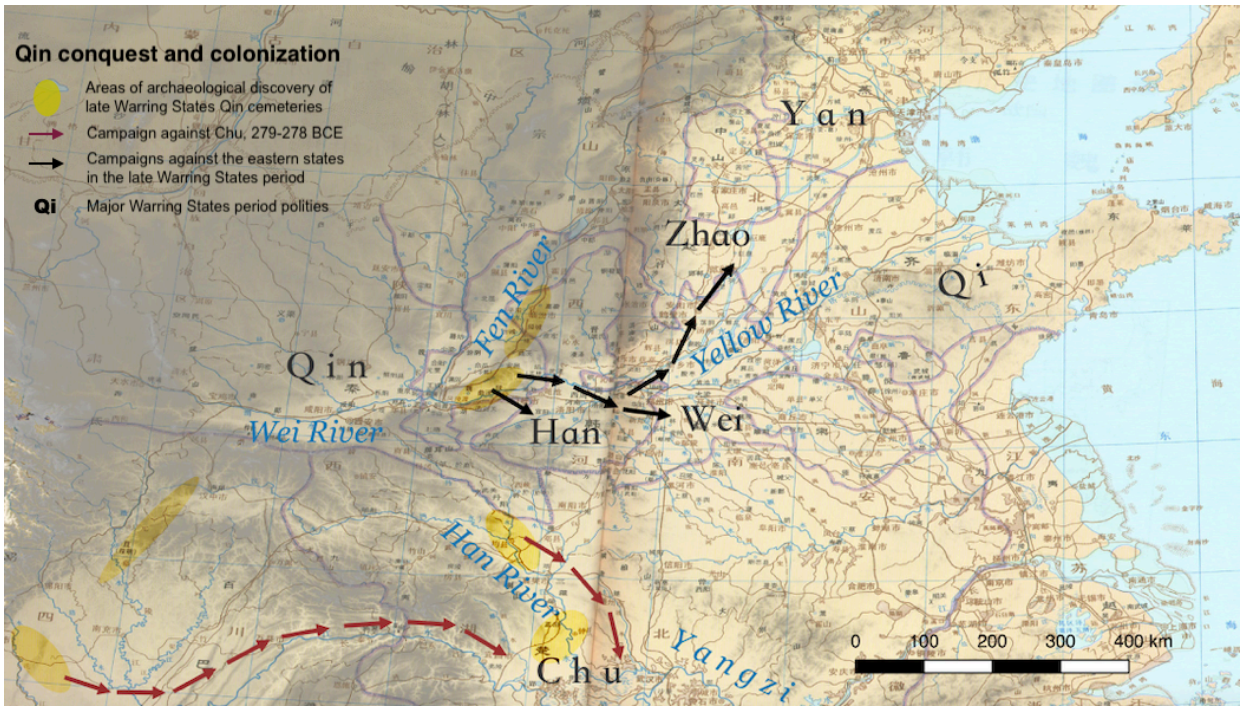
[37] Initially after the conquest of the Chu metropolitan region, the seat of the newly established Nan Commandery was located at the former Chu capital of Ying and was relocated to the county town of Jiangling at some point during the reign of King Zheng 政 of Qin (r. 246–210 BCE, including 221–210 BCE as the First Emperor of Qin), see Xin Deyong 辛德勇, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu" 北京大學藏秦水陸里程簡策初步研究 [A preliminary study of the Qin mileage chart on bamboo slips from the Peking University collection], *Chutu wenxian* 出土文獻 4 (2013): 177-279, esp. 184. For the manuscripts excavated in the Yangzi River basin, see Hu Pingsheng 胡平生 and Li Tianhong 李天虹, *Changjiang liuyu chutu jiandu yu yanjiu* 長江流域出土簡牘與研究 [*Manuscripts on bamboo and wood excavated in the Yangzi basin and their study*] (Wuhan: Hubei jiaoyu, 2005).

Topographically, the basins of the Yellow River's eastern tributaries, the Fen 汾 and Su 涑 Rivers, constitute an eastward extension of the Guanzhong Depression and are accessible from Guanzhong once the Yellow River is crossed. As such, they constituted an ideal base for the invasion into Guanzhong that was attempted by the state of Wei 魏, the chief contender for the hegemony over the Great Plain and Qin's major adversary during the early and mid-Warring States.[38] Conquest of the Wei possessions to the west of the Yellow River and in the lower Wei River basin in late 330's BCE opened the way for the Qin incursions across the River that culminated in the annexation of the former Wei capital of Anyi 安邑 in 286 BCE. The Qi is reported to have resettled amnestied criminals along with the residents of previously conquered lands in Hedong 河東 ("East of the River") to the Anyi area.[39] By capturing the Sanmenxia region from the state of Han, the Qin armies secured access to the Great Plain and came within direct striking distance of the capitals of Han, Wei, Zhao, and that of the declining royal house of Zhou that still retained some ritual supremacy in the Warring States world.[40] Both regions became vital bridgeheads for the Qin campaigns in the Great Plain in the closing years of the Warring States period (see Map 2.2).

[38] For the Wei's ultimately failed attempts to establish itself as a hegemon of the Warring States world during the fourth century BCE, see, for example, Yang Kuan, *Zhanguo shi*, 341-347.

[39] *Shiji*, 5.212.

[40] For an early attempt by a Qin ruler to lay claim to the Zhou capital in 308 BCE, see *Shiji*, 5.209.



Map 2.2: Qin conquest and colonization, fourth and third centuries BCE

Qin's arrival to the east of the Yellow River was marked by a dramatic change in the composition of the local population. Archaeologists observed a shift in the funeral culture from the local type of burial structure and funeral ceramic assemblage, usually referred to as the "Jin culture" in Chinese publications, to that typical of the Wei River basin and associated with the core Qin population. The transition was even more pronounced than in the former Chu capital area discussed above. Local burials fade away from the archaeological record, while large cemeteries composed of Qin-style tombs appear along the lower reaches of the Fen River and in the Sanmenxia area. The moderate size of most of these burials and modest assemblages of funeral inventory imply the cemeteries were used by the Qin settlers who replaced the local population relocated elsewhere.[41]

[41] Zhao, "Qin tongyi qianhou Qin wenhua yu lieguo wenhua," 622-623; Teng, *Qin wenhua*, 126-127.

Sichuan and particularly the Chengdu Plain became one of the main destinations of Qin colonization soon after the conquest in 316 BCE. Later sources mention that "ten thousand" Qin families were resettled to Sichuan to ensure the control over the newly acquired region, the figure that probably serves to indicate large scale of this state-organized migration rather than to record the actual number of immigrants.[42] Some modern scholars estimate the overall number of Qin settlers during the Warring States and imperial periods at several hundred thousand.[43] The settlement process was less dramatic than in Sanmenxia, along the Fen River or on the Middle Yangzi. Highly distinctive local tombs with boat coffins and variety of weapons in funeral assemblages endure well after the mid-Warring States period and coexist with Qin-style tombs that tend to form separate cemeteries. The cemeteries excavated so far cluster around Chengdu 成都, the administrative center of the Shu 蜀 Commandery, and along the road traversing the plain in a northerly direction that connected it to Guanzhong via the upper Han valley.[44] In the late Warring States and under the Qin Empire, Sichuan became the major destination for criminals condemned to exile and relocated subjects of the states annihilated by the Qin.[45]

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[42] I am grateful to Robin D.S. Yates for pointing out that this figure is probably not a record of the actual number of settlers but a generic reference to the large numbers of people who moved to Sichuan.

[43] *Huayang guozhi* 華陽國志 [*Records of the states to the south of Mount Hua*] (Chengdu: Sichuan daxue, 2007), 3.128; for the estimate of the number of settlers, see Sage, *Ancient Sichuan*, 134.

[44] For the Qin cemeteries in Sichuan, see Li Mingbin 李明斌, "Lun Sichuan pendi de Qin ren mu" 論四川盆地秦人墓 [On the Qin tombs in the Sichuan Basin], *Nanfang wenwu* 南方文物 3 (2006): 91-99; Song Zhimin 宋治民, *Shu wenhua* 蜀文化 [*The Shu culture*] (Beijing: Wenwu, 2008), 111-170; Alaine Thote, "The Archaeology of Eastern Sichuan at the End of the Bronze Age (Fifth to Third Century BC)," in Robert Bagley, ed. *Ancient Sichuan: Treasures from a Lost Civilization* (Princeton: Princeton University Press, 2001), 203-251; Sichuan sheng bowuguan 四川省博物館 and Qingchuan xian wenhuaguan 青川縣文化館, "Qingchuan xian chutu Qin gengxiu tianlü mudu" 青川縣出土秦更修田律木牘 [A wooden tablet with the Qin statute on the change in the field system excavated at Qingchuan County], *Wenwu* 1 (1982): 1-21.

[45] Transmitted and excavated texts mention Sichuan and particularly the saltworks of Shu and Ba as destinations for criminals sentenced to exile or convict labor. See, for example, *Shiji*, 6.227, 6.231; *Shuihudi*, 155, slips 46-49; *Yuelu*

While individual tombs with the elements of the Qin funerary culture have been discovered in other regions, available evidence for the mass influx of population practicing the Qin burial customs and for the replacement of local material culture with that of the newly arriving settlers is limited to the abovementioned regions.[46] They were conquered by the state of Qin during the mid-Warring States period when its expansion was still meeting stiff resistance and temporary setbacks, and served as bases for the late Warring States campaigns, including the final campaign of conquest in 220's BCE. Resources of these regions were intensely mobilized to support the war effort through administrative and fiscal policies discussed in the following section.

1.3. Summary

The continuous warfare between the states of Qin and Chu eventually brought the Qin armies to the Middle Yangzi region. This war was a struggle for the control over the major transportation routes connecting the core regions of the two states. As the semi-autonomous vassal polities were incorporated into the state of Chu during the late Spring and Autumn and early Warring States periods, the Qin and Chu came to share a border in the Han River valley. The geographic import of this river system was that it connected the heartlands of the two states by a convenient transportation route that was increasingly utilized for military and commercial purposes (see Chapter 5 for a detailed discussion).

Starting from the mid-fourth century BCE, the Qin campaigns in the Han basin consistently reduced the Chu threat to Guanzhong that for the last time materialized in 312 BCE. Warfare

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shuyuan cang Qin jian 岳麓書院藏秦簡 [*Qin bamboo slips from the Yuelu Academy collection*], vol. 4, ed. Chen Songchang (Shanghai: Shanghai cishu, 2015), 200, slip 317 (589).

[46] Zhao, "Qin tongyi qianhou Qin wenhua yu lieguo wenhua," 624-626; for the Yangzi basin, see Sun Wenbo, "Qin ju Hanshui yu Nan-jun zhi zhi," 64.

continued until the entire water route was controlled by one power, the Qin. As Chapter 3 will demonstrate, a similar logic instructed the Qin expansion to the south of the Yangzi. It had to do with the considerations of military security and with the possibility of revenue extraction provided by riverine transportation.

The Qin's ability to advance down the Han River depended on the pacification of the conquered territories they were leaving behind and the development of a supply base in the immediate rear of the front lines. These goals were achieved through settling the strategically important areas in the Han valley with Qin colonists. The same strategy was applied in a number of other regions that played a key role in the military campaigns as material bases and bridgeheads. The following section locates this colonization strategy within the fiscal model developed to finance the Qin wars.

2. Fiscal organization and local administration in the state of Qin

Prior to the discovery of the authentic Qin documents starting from the mid-1970's, generations of historians imagined the Qin fiscal organization as a more brutal version of the better-known Han system. Qin's efficiency in extracting revenues was manifest in its ability to finance century-and-a-half-long successful campaigns of conquest before and after the imperial "unification." Explanation was readily found in the Warring States and Han-era accounts of the Qin rulers "using up people's strength to the full" (*shi min jin li* 使民盡力) through merciless exploitation.[47]

[47] The *Book of Lord Shang* (*Shang-jun shu* 商君書), traditionally regarded as the blueprint of the mid-fourth century BCE Qin reforms, explicitly demands that subjects of the state from minister down to common farmers exert themselves to the utmost in the service of the ruler. See, for example, Jiang Lihong 蔣禮鴻, ed., *Shangjun shu zhuizhi* 商君書錐指 [*The Book of Lord Shang, edited and annotated*] (Beijing: Zhonghua shuju, 1986), 2.42-50 (Chapter 6 "Calculation of land," *Suan di* 算地). For a recent and detailed discussion of the likely compositon dates for individual

Archaeologically excavated legal and administrative texts from the late Warring States, imperial Qin period, and the beginning of the Han era when many of the Qin fiscal institutions were still in place have revealed the evolution of the Qin model of state finance. This was also the period when territorial frontiers of the empire were still in formation, and when its government experimented with various forms of administrative organization.[48] Generally speaking, the fiscal transition involved the monetization of levies; shrinking of the state economy, particularly the unfree labor force directly operated by the government; stabilization of state income and spending; extension of the fiscal base and reduction in the intensity of extraction that also resulted in the reduction in monitoring costs; and the emergence of fiscal compromise between the central government and local elites who became instrumental in revenue collection.[49]

This section outlines the Qin model of resource extraction before and after the proclamation of the empire in 221 BCE. I will discuss the relationship between the distinctive features of Qin taxation and the structural conditions of the state of Qin on the eve of the reforms, such as the

chapters of the *Book of Lord Shang*, see Pines, "Dating a Pre-Imperial Text: The Case Study of the *Book of Lord Shang*," *Early China* 39 (2016): 1-40; and Pines, *The Book of Lord Shang: Apologetics of State Power in Early China* (New York: Columbia University Press, 2017), 52-53.

[48] Following the collapse of the Qin Empire in 207 BCE, the independent polity of Southern Yue 南越 emerged in the territory of its southern commanderies in what is now Guangdong and Guangxi provinces of China, while the recent acquisitions in the Ordos passed under the control of the emerging Xiongnu confederacy. Moreover, after the formal reconstruction of the empire by the Han founder Liu Bang 劉邦 (256–195 BCE), its eastern part, roughly coinciding with the territories of the Warring States conquered by Qin in the last decade before the "unification," acquired broad autonomy under local princedoms (*zhuhou guo* 諸侯國, such as Qi, Zhao/Dai, Chu, etc.) that possessed many attributes of independent states. For territoriality and administrative organization of the early Western Han empire, see, for example, Michael Loewe, "The Former Han Dynasty," in *The Cambridge History of China*, ed. Denis Twitchett and John Fairbank, Volume 1: *The Ch'in and Han Empires, 221 B.C. – A.D. 220*, ed. Denis Twitchett and Michael Loewe (Cambridge: Cambridge University Press, 1986), 123-152. The importance of the introduction of the local princedoms system at the beginning of Han with regard to the fiscal organization will be further discussed in the third section of this chapter.

[49] For a more detailed analysis of the fiscal transition from the Qin to Han taxation regime, and the significance of both Qin and Han fiscal models in the history of imperial China, see Maxim Korolkov, "Fiscal Transitions in Early China from the Warring States to the Empires (late fourth to first century BCE)," in Irene Soto and Jonathan Valk, eds., *The Mechanics of Extraction: Comparing Principles of Taxation and Tax Compliance in the Ancient World* (Albany: State University of New York Press, 2020).

geographic conditions of Guanzhong and the traditions of labor mobilization; the impact of the patterns of state spending on the territorial distribution of the taxation base; the factors determining the nature of principal-agent relationships within the Qin fiscal system, and the ways it addressed the issue of transaction, including monitoring, costs; and the peculiarities of the Qin fiscal system as a redistributive mechanism.

The range of issues explored in this section is informed by sociological approaches to the history of taxation, in particular, the so-called New Fiscal History (NFH) that seeks to integrate economic, sociological, and political perspectives on the history of taxation. The NFH applies the terms "fiscal regime" or "fiscal constitution" to define the relationship between the assortment of state revenues (taxes, tolls, rents, and so on) and the state's economic, military, and political development.[50] While many NFH scholars find useful the typology of fiscal regimes developed by the Austrian economist Joseph Schumpeter (1883–1950) to analyze the formation of public finance in early modern Europe,[51] NFH implies no single theory in the study of historical taxation systems, so the range of theoretical approaches varies widely from the neo-institutional ones that view the paying of taxes as a market-like incentive provided by the subjects to the rulers to protect subjects' property rights;[52] to structural demographic theories that analyze the relationships between population pressure, elite competition, and fiscal crises.[53]

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[50] For a useful recent summary of concepts and theories applied by the NFH historians, see Monson and Scheidel, "Studying fiscal regimes," 3-27.

[51] For example, Schumpeter's original two types of fiscal regimes, the domain and tax states, were complemented with additional two, the tributary and fiscal states. See Richard Bonney and Mark Ormrod, "Introduction: Crises, Revolutions, and Self-Sustained Growth: Towards a Conceptual Model of Change in Fiscal History," in Ormrod, Margaret Bonney, and Richard Bonney, eds., *Crises, Revolutions, and Self-Sustained Growth: Essays in Eurpean Fiscal History, 1130–1830* (Stamford: Shaun Tyas, 1999), 1-21.

[52] See, for example, Margaret Levi, "The Predatory Theory of Rule," *Politics and Society* 10 (1981): 431-465.

[53] See, for example, Peter Turchin, *Historical Dynamics: Why States Rise and Fall* (Princeton: Princeton University Press, 2003).

Two approaches developed within the NFH are deployed in the following analysis of the historical evolution of the Qin taxation model. Fiscal historians emphasized the role of transaction costs and agency in defining types and forms of revenue collection (direct or indirect, in-kind or monetized), the nature of tax rates (fixed, variable) and fiscal contract between the principal and the agent (share, wage, or fixed-rent contract)[54], and the composition and location of revenue base (internal or external, agricultural hinterland or trade routes) in fiscal regimes.[55] This approach is sensitive to the geographical and logistical factors that affected transaction, including agency, costs, and, consequently, the efficiency of taxation systems. These factors were powerfully at play in the final stages and after the completion of "unification" wars that resulted in rapid and vast expansion of Qin territory.

Another line of analysis focuses on the relationships between the fiscal regimes and the composition of social (particularly the elite) coalitions capable of installing and ousting the rulers, to whose interests the latter have to cater.[56] Imperial state formation in continental East Asia resulted not only in the inclusion of large groups of hereditary as well as commercial elites of the conquered polities into the ranks of Qin subjects but also the growth of bureaucracy that was increasingly putting forward its claims for elevated social status and a share in empire's revenues.

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[54] For these main forms of "fiscal contract," defined as the distribution of collected revenues between the principal and the agent, see, for example, Scheidel, "The Early Roman Monarchy," in Monson and Scheidel, eds., *Fiscal Regimes and the Political Economy of Premodern States*, 229-257.

[55] For an application of agency theory in a fiscal-historical study, see, for example, Edgar Kiser and Joachim Schneider, "Bureaucracy and Efficiency: An Analysis of Taxation in Early Modern Prussia," *American Sociological Review* 59.2 (1994): 187-204, and Kiser, "Markets and Hierarchies in Early Modern Tax Systems: A Principal-Agent Analysis," *Politics & Society* 22.3 (1994): 284-315. For the role of transaction costs in determining tax collection arrangements, see, for example, Metin Coşgel and Thomas Miceli, "Risk, Transaction Costs, and Tax Assignment: Government Finance in the Ottoman Empire," *Journal of Economic History* 65 (2005): 806-821.

[56] See, for example, Bruce Bueno de Mesquita and Alastair Smith, "Political Survival and Endogenous Institutional Change," *Comparative Political Studies* 42 (2009): 167-197; and Monson and Scheidel, "Studying fiscal regimes," 13-14.

In this regard, it may be worthwhile to point out that the following discussion will primarily focus on the financial relationship between the central and local governments, where the latter refers to the county (*xian*) level. In the late Warring States and imperial Qin, outside of Guanzhong, counties were organized into larger units, commanderies (*jun* 郡), yet commanderies had not yet evolved into full-fledged units of territorial administration. Their main functions were military: command of troops and munitions production, for which purpose at least some commanderies operated armor workshops. Throughout the Warring States period, counties were financially accountable directly to the central government, and their officials were appointed by the center, the situation that only started to change during the imperial Qin period.[57]

Counties were also in charge of the vast majority of the management of economic tasks (opening up new fields, construction and maintenance works, artisanal production, operation of agricultural and animal farms, distribution of rations to state personnel etc.) as well as tax

[57] For a recent study of the evolution of commandery institution from the late Warring States through imperial Qin into the beginning of the Western Han era, which makes comprehensive use of the newly excavated documents, see You Yifei 游逸飛, "Zhanguo zhi Han chu de jun zhi biange" 戰國至漢初的郡制變革 [Reform in the institute of commandery from the Warring States period to the early Western Han Dynasty], Ph.D. dissertation, National Taiwan University 國立台灣大學, 2014. For the production of weapons at the commanderies, see, for example, Tsuchiguchi Fuminori 土口史記, *Senshin jidai no ryōiki shihai* 先秦時代の領域支配 [*Territorial control in the pre-Qin era*] (Kyoto: Kyōto daigaku gakujitsu, 2011), 127-128. That even in the imperial Qin period (221–207 BCE) the commandery had not yet developed into a full-fleged administrative unit is suggested by the fact that various functions that later came to be integrated under the commandery administration were then divided between the officials whose respective jurisdictions included several counties. Apart from the commandery, another such office was the "Implementer of the Law" (*zhi fa* 執法), whose functions were primarily judicial and legal but who could also monitor county finances and interfere in administrative matters. This office only became known with the recent discoveries of the Qin documents. By the Western Han, it already merged with the commandery and is therefore unreflected in transmitted records of the empire's administration. Its story suggests that the Qin rulers were experimenting with various forms of regional administration, which was still in the formative stage in the Qin Empire. For the "Implementer of the Law", see, for example, Peng Hao 彭浩, "Tan *Yuelu shuyuan cang Qin jian (si)* de "zhi fa" 談《岳麓書院藏秦簡（肆）》的"執法" [Discussing the "Implementer of Law" in *Yuelu shuyuan cang Qin jian*, vol. 4], in Wang Jie 王捷, ed., *Chutu wenxian yu falü shi yanjiu* 出土文獻與法律史研究 [Excavated texts and the study of legal history], vol. 6 (Beijing: Falü, 2017), 84-94; and Tsuchiguchi, "Yuelu Qin jian "zhi fa" kao" 岳麓秦簡"執法"考 [An analysis of the "Implementer of Law" in the Qin documents from the Yuelu Academy collection], in Zhou Dongping 周東平 and Zhu Teng 朱騰, eds., *Falü shi yiping* 法律史譯評 [*Translations and evaluations of studies in legal history*], vol. 6 (Shanghai: Zhongxi shuju, 2018), 50-72.

collection. Importantly for the analytical perspective adopted in this chapter, the county level was also where the vast majority of bureaucratic agencies and personnel outside the capital were deployed.[58] In short, it was at this level that the state revenues were accumulated and processed and that the transaction cost and principal-agent relationship factors were most saliently at play in shaping and reshaping the fiscal constitution of the empire.

By concentrating on the two key dynamics, the territorial-logistical and the social ones, I develop the perspective for understanding the changes in taxation practices in the late third and early second centuries BCE leading to the decline of the Qin taxation model and the emergence of the Han fiscal regime that embodied fundamental approaches to taxation in imperial China.

2.1. Conditions of the Qin fiscal institutions

After the Zhou royal court fled its old base in the Wei River basin for the new capital of Luoyang in 770 BCE, the economic and political centers of the Zhou world shifted eastwards.[59] The Great Plain and the Shandong region in North China became arenas of accelerated state formation and development of new administrative and economic policies, which were largely driven by incessant warfare.[60] These changes cumulatively contributed to the emergence of a new

[58] At the end of the Western Han period when these numbers for the first time become available, the bureaucracy of one commandery in the eastern part of the empire, Donghai 東海, consisted of 2,202 officials, of whom only 39 (1.77%) staffed commandery administration while 2,056 (93.37%) were county-level officials. The remaining 107 (4.86%) belonged to the offices of salt and iron directly subordinate to the central government. See Lianyungang shi bowuguan 連雲港市博物館 et al., eds., *Yinwan Han mu jiandu* 尹灣漢墓簡牘 [*Documents on bamboo and wood from the Han tomb at Yinwan*] (Beijing: Zhonghua shuju, 1997), 77-78, tablet 1. See also Michael Loewe, *The Men Who Governed Han China: Companion to* A Biographical Dictionary of the Qin, Former Han and Xin Periods (Leiden and Boston: Brill, 2004), 60-74.

[59] For a study of political events that accompanied the fall of the Western Zhou and the eastward relocation of the Zhou capital, see Li Feng, *Landscape and Power*, 193-278.

[60] For a recent overview of the political and socio-economic changes during the Spring and Autumn (771–453) and Warring States periods, see von Glahn, *The Economic History of China*, 44-83.

type of polity that increasingly claimed exclusive and unmediated access to human and material resources within strictly defined territorial borders.[61] During the sixth and fifth centuries BCE, the states on the Great Plain and in Shandong carried out administrative reforms that increased their ability to mobilize and reallocate resources for collective purposes such as infrastructure improvement and war-making. The emergence of the territorial-administrative system based on the counties (*xian* 縣), the units directly controlled by the central governments of the states rather than by aristocratic lineages, was a crucial development.[62] A number of key fiscal novelties such as the systems of regular taxation and financial accountability of local administrative units to the central government were facilitated by the spread of bronze coinage, the progress of communication capacity (growing literacy and ability to communicate information through formalized written records), and the expansion of social groups providing the state rulers with administrative expertise.[63]

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[61] The best English-language accounts of the late Spring and Autumn and early Warring States transition to what he defines as "territorial states" are those by Mark Edward Lewis. See his *Sanctioned Violence in Early China* (Albany: State University of New York Press, 1990), 54-67; "Warring States Political History," in Michael Loewe and Edward Shaughnessy, eds., *The Cambridge History of Ancient China: From the Origins of Civilization to 221 B.C.* (Cambridge: Cambridge University Press, 1999), 587-650, esp. 616-619; and *The Early Chinese Empires: Qin and Han* (Cambridge, MA, and London: Harvard University Press, 2007), 30-50, esp. 33-35. This section will show that the ideal of pervasive territorial control was never achieved in the state and empire of Qin outside its core region and some strategically important areas.

[62] The first counties were probably founded in the state of Chu in the end of the eighth and the beginning of seventh century BCE. The state of Jin 晉 was the pioneer of the county system in North China, although it appears to have been less successful than in Chu. For the study of the origins of the county system, see Herrlee Creel, "The Beginnings of Bureaucracy in China: The Origin of the *Hsien*," *Journal of Asian Studies* 22 (1964): 155-183; and Li Feng, *Early China: A Social and Cultural History* (Cambridge: Cambridge University Press, 2013), 166-170.

[63] The earliest recorded attempt to establish a state-wide centralized taxation system was made by the eastern state of Lu 魯 in 594 BCE, see *Zuozhuan (Chunqiu jingzhuan jijie)* 左傳（春秋經傳集解） [*The Zuo Commentary: Collected annotations to the classic of "Spring and Autumn" and its commentary*] (Shanghai: Shanghai guji, 2007), 11.614. For the introduction of financial accounting system known as *shangji* 上計 ("submitting accounts") in the state of Wei 魏 in late fourth or early third century BCE, see *Han Fei-zi jijie* 韓非子集解 [*Collected annotations to "Master Han Fei"*], ed. Wang Xianshen 王先慎 (Beijing: Zhonghua, 2011), 12.301. For these two developments as markers of the new era in financial administration, see, for example, Watanabe Shinichiro 渡辺信一郎, *Chūgoku kodai no zaisei to kokka* 中国古代の財政と国家 [*Finance and state in ancient China*] (Tokyo: Kyuko-shoin, 2010), 35-36. For the emergence of coinage, see Li Xueqin, *Eastern Zhou and Qin Civilizations* (New Haven and London: Yale University

Confined to what by the late Spring and Autumn period became a western periphery of the Zhou world, the Qin rulers for a long time remained rather passive observers of sociopolitical and economic changes to the east of their domain. So far as the scarce written record permits to judge, until the mid-Warring States period the state of Qin lagged behind its eastern neighbors in terms of economic development and institutional innovation. Some form of land taxation was for the first time attempted in 408 BCE, almost two centuries after analogous experiments are recorded in the Shandong states of Qi and Lu.[64] Coinage was introduced in 336 BCE, more than two and a half centuries after the first coinage on the Great Plain, although cloth money may have already been in use prior to that date.[65] Unsurprisingly, the radical reforms of the mid-fourth century BCE were supervised by an expert advisor previously serving in the state of Wei that was among the champions of financial and administrative innovation.[66]

I suggest that the success of the mid-fourth century transformation as well as the specific features of the Qin taxation that set it apart from the states on the Great Plain and in Shandong are

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Press, 1985), 371-398; and Emura Haruki, *Shunshū Sengoku jidai seidō kahei no seisei to tenkai* 春秋戦国時代青銅貨幣の生成と展開 [*Emergence and development of bronze coinage during the Spring and Autumn and Warring States periods*] (Tokyo: Kyūko Shoin, 2011). For the political ascension of the social stratum of *shi* 士 (sometimes referred to as "knights," "scholar-officials," or "men of service"), the descendants of junior branches of aristocratic lineages who starting from the late Spring and Autumn period were increasingly offering their administrative, military, and ritual expertise to the service of state rulers, see, for example, Cho-yun Hsu, *Ancient China in Transition: An Analysis of Social Mobility, 722-222 B.C.* (Stanford: Stanford University Press, 1965), 38-51; Pines, *Envisioning Eternal Empire*, 115-184.

[64] *Shiji*, 15.708.

[65] *Shiji*, 15.727: "Issued/circulated coin (*xing qian* 行錢)". Some scholars have argued 336 BCE was the date of the official recognition of the Qin round coin, the *banliang* 半兩, as the sole legal tender within the borders of the state rather than the date of the first Qin coinage. See Kakinuma Yōhei 柿沼陽平, *Chūgoku kodai no kahei* 中国古代の貨幣 [*Currency in ancient China*] (Tokyo: Yoshikawa Hironikan, 2015), 52.

[66] Shang Yang belonged to a junior branch of the royal house of one of the minor states in the lower Yellow River basin, the Wei 衛 (often referred to as the Smaller Wei, or Wey, not to be confused with one of the seven major Warring States polities, the (Greater) Wei 魏, which is written with a different character), and started his career serving the (Greater) Wei, see *Shiji*, 68.2227.

better understood against the background of structural conditions determinative of the Qin's lag in fiscal development prior to the mid-Warring States. The specific organization of state extraction in Qin, in turn, proved key to its efficiency in mobilizing resources for the war effort.

One may start with considering the topographic features of Qin's heartland of Guanzhong. This was a relatively narrow river valley with an area of approximately 12,300 square kilometers surrounded by the Qinling Mountains in the south and the loess plateau to the north. Archaeological evidence suggests the latter region remained outside the Qin cultural sphere and was sparsely populated prior to the Warring States period.[67] Thereafter, the Qin agricultural expansion to the north of the Wei River valley was triggered by the mounting population pressure in the Wei River valley and probably facilitated by the broader availability of iron tools.[68]

The relatively circumscribed topography of the Guanzhong basin was advantageous for direct management of manpower by the ruler. The extensive state-managed economy was already established under the Qin's political predecessor in this region, the Western Zhou state (1045–771 BCE, but its control over Guanzhong started long before the earlier of these dates).[69] Although written evidence is lacking, one may speculate that much of its practices and surviving administrative personnel were taken over by the Qin as the center of their polity moved into the Guanzhong in the eighth century BCE, soon after the evacuation of the Zhou royal court.[70] During

[67] Falkenhausen, *Chinese Society*, 284.

[68] Shelach, *The Archaeology of Early China: From Prehistory to the Han Dynasty* (Cambridge: Cambridge University Press, 2015), 291-293.

[69] For the state-managed land that "constituted the main source of revenue of the Western Zhou state and were used to cover the expenses of the central government (and partly probably also of the royal house) and to support the Zhou military," see Li Feng, *Bureaucracy and the State in Early China: Governing the Western Zhou* (Cambridge: Cambridge University Press, 2008), 158-159.

[70] For the archaeological evidence on the Qin migration down the Wei River valley, see Teng Mingyu, "From Vassal State to Empire: An Archaeological Examination of Qin Culture," in Pines et al., eds., *Birth of an Empire*, 71-112, which summarizes the findings of her earlier book, see Teng, *Qin wenhua*.

the Spring and Autumn era, the Qin rulers presided over enormous tomb-building projects that by far surpassed their eastern peers in terms of scale and amount of labor required.[71] This early evidence for Qin rulers' extraordinary ability to mobilize manpower connects well to the massive deployment of dependent laborers in the state-managed agriculture, husbandry, and artisan production well-recorded in the late Warring States documents.

The relatively compact territorial configuration of Qin possessions in the Guanzhong also reduced the incentives for improving the state's capacity to transfer resources over long distances. In contrast, the polities on the Great Plain, notably the states of Wei, Han, and Zhao entered the Warring States era with dispersed land holdings that called for greater efficiency in collection and distribution of revenues. These differences may account for the rapid progress in the use of coined money in these states and the greater role of mercantile groups that enjoyed considerable autonomy in the face of the rulers.

The traditions of state economy, in particular, mobilization and management of labor, provided Qin rulers with independent resources necessary for promoting the initially unpopular reforms against the resistance of aristocratic elites that proved fatal for radical reformers in some other Warring States.[72] As we will see, throughout the Warring States and imperial Qin periods, when the general taxation system was already in place, much of the resources needed to maintain state administration and military personnel were produced by the facilities directly managed by the government and worked by state-dependent convict laborers (see Chapter 4).

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[71] Lothar von Falkenhausen with Gideon Shelach, "Introduction: Archaeological Perspectives on the Qin Unification of China," in Pines et al., eds., *Birth of an Empire*, 37.

[72] The story of the Chu statesman Wu Qi 吳起 (d. 381 BCE), one of the leading reformers of the early Warring States period, epitomizes the fate an itinerant advisor whose position of power rested entirely on the ruler's favor and whose reform attempts were frustrated by the locally embedded aristocratic and court elites, see *Shiji*, 65.2165-2169.

One perplexing question that can hardly be answered on the basis of present evidence is whether or not the resources controlled and managed by the Qin rulers prior to the mid-Warring States reforms can be characterized as a domain economy, that is, the ruler's household property and subjects' obligations owed personally to the ruler. With regard to the Western Zhou period, arguments were made both for and against the existence of state-managed landholdings as something distinct from those of the royal lineage.[73] In the late Warring States period when detailed information about Qin institutions starts to become available, the royal household incomes from various sources, including land properties, were differentiated from the state economy and managed by a separate bureaucratic organization, the Lesser Treasury (*shao fu* 少府, also referred to as Privy Purse). Yet this office was probably established closer to the end of the Warring States, and it is unclear whether or not a distinct domain economy was maintained prior to that time.[74]

While the royal and state resources may well not have been differentiated before (and maybe even sometime after) the fourth century reforms in Qin, I suggest that whether one defines resources controlled and operated by the Qin rulers as domain or state economy does not affect my analysis of the conditions that facilitated centralized resource mobilization in the state of Qin and defined the path of its fiscal-institutional development. This is particularly manifest in the

[73] In his study of the Western Zhou government, Li Feng postulated the existence of three types of lanholdings: aristocratic lineage, royal, and state-managed. See Li Feng, *Bureaucracy and the State in Early China*, 150-159. This view was criticized by Lothar von Falkenhausen who argued that in the Western Zhou there is no evidence for state finance as something distinct from the resources of lineages, and that there was only one type of landed property, lineage property. See Falkenhausen, "Review of Li Feng, *Bureaucracy and the State in Early China: Governing the Western Zhou.* Cambridge: Cambridge University Press, 2008," *Zhejiang University Journal of Art and Archaeology* 1 (2014): 252-277, esp. 271.

[74] For the Lesser Treasury and the management of household economy of the Qin rulers, see, for example, Sahara Yasuo 佐原康夫, *Kan dai toshi kikō no kenkyū* 漢代都市機構の研究 [*A study of the city structure in the Han era*] (Tokyo: Kyūko shoin, 2002), 130-135; von Glahn, *The Economic History of China*, 96; and Chen Songchang, *Qin dai guanzhi kaolun* 秦代管制考論 [*An examination of the bureaucratic regime under the Qin*] (Shanghai: Zhongxi, 2018), 62-73.

marshalling of large labor armies that, even if they partly consisted of royal dependents and their costs were covered by the incomes from the royal lineage lands, implies considerable exercise in direct operation of manpower and material resources.

Overall, the mid-Warring States Qin enjoyed a number of "advantages of backwardness" that translated into a specific assortment of fiscal principles and policies.[75] As in many other historical contexts, the immediate impulse for change was provided by the military setbacks that Qin experienced in the late fifth and early fourth centuries BCE when the most powerful state of the day, the Wei, succeeded in establishing a bridgehead on the western bank of Yellow River to threaten the Qin homeland.[76] The taxation reforms in Qin were from the beginning designed to finance the war effort.

2.2. Fiscal model of the Warring States Qin

By the late Warring States period when relatively ample and reliable evidence becomes available, the assortment of Qin fiscal resources consisted of direct and indirect taxes collected in kind and in cash, and of labor levies. They may be divided into the following categories.

Direct taxes included land tax (taxation of agricultural produce and by-produce), that was, according to the written sources, introduced in 408 BCE and mostly collected in kind, and

[75] Economists characterize the comparative advantages of underdeveloped countries such as cheap labor as "advantages of backwardness," see, for example, Erich Weede, "Economic Freedom and the Advantages of Backwardness," *Cato Institute Economic Development Bulletin* 9 (2007): 1-2. Here the term is used rather to refer to the organizational advantages, particularly in the military context, provided by the Qin's peripheral geographic location in the Zhou world and delayed adoption of major economic innovations of the Eastern Zhou era, such as money in the form of coinage.

[76] For the impact of war expenditures on the consolidation of fiscal power in the early modern European states, see Charles Tilly, *Coercion, Capital, and European States, AD 990–1990* (Cambridge, MA: Basil Blackwell, 1990), 67-95. For one of the most studied cases of such consolidation, that of England/Great Britain, see John Brewer, *The Sinews of Power: War, Money and the English State, 1688–1783* (London: Unwin Hyman, 1989).

miscellaneous levies (*fu* 賦), at least some of which are recorded to have been introduced in 348 BCE.[77] The latter are often identified with capitation tax, *koufu* 口賦, of the Han period.[78] However, a capitation tax is never mentioned in Qin sources that only record the existence of a household tax, *hufu* 戶賦.[79]

Indirect taxes were levied on commercial transactions carried out at the official markets (*shi* 市) and in other settings. According to the transmitted accounts, official markets were established in 378 BCE, but it is unclear if legal regulations concerning commercial taxes that date from the imperial Qin period applied at this early date.[80]

Labor levies were not strictly separated from military levies, and military recruits were often employed for purely labor tasks. Introduction of a state-wide statute labor system was closely linked to the progress of population censuses, the earliest of which was recorded in 375 BCE,[81] even though the introduction of systematic household registration and grouping of households into units of five is attributed to the Shang Yang reforms some twenty years later (356 BCE).[82] Apart from mobilizing the labor of its subjects through regular levies, the Qin authorities relied heavily on the labor of convicted criminals and other legally degraded groups such as state debtors and various types of slaves. These pools of labor were particularly instrumental in the functioning of the **state economy** that generated considerable streams of revenue, especially in the frontier areas.

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[77] According to the *Shiji*, 5.203, 15.724.

[78] See, for example, Sun Kai 孫楷, *Qin Huiyao* 秦會要 [*Essentials of the Qin*] (Shanghai: Shanghai guji, 2004), 354.

[79] *Shuihudi*, 132, slip 165.

[80] For the introduction of official markets in the state of Qin, see *Shiji*, 6.289.

[81] *Shiji*, 6.289.

[82] *Shiji*, 68.2230.

As a result of the lack of revenue data for any particular year until well into the Western Han period, it is impossible to quantitatively assess either comparative contribution of each of these taxes and levies to the overall state income or the distribution of revenue between the central and local authorities.[83] The following discussion is by necessity restricted to qualitative analysis and focuses on such questions as the relationship between the mechanisms of resource extraction and patterns of state spending, including both material resources and the use of the labor force; the territorial aspect of the fiscal base and its impact on the efficiency of monitoring agent behavior and taxpayer compliance; distributional effects of the fiscal system; and the development of new taxation techniques within the dominant modes of extraction.

Land taxation

Land surveying and land distribution

Duly characterized as the foundation of the financial system of early empires, the land tax was levied in agricultural produce (primarily grain crops, but also beans and hemp) and hay and straw.[84] Disbursements of grain to the court and officials, military servicemen, and state-employed laborers, as well as in disaster relief and social welfare was pivotal for the maintenance of political order and projection of state power.[85] Supply of hay and straw was indispensable for the

[83] For the end of the Western Han period, such estimate of state revenues was attempted by Yamada Katsuyoshi, see Yamada, *Shin Kan zaisei shūnyū*, 653-658.

[84] Studies of taxation in the Qin and Han empires conventionally begin with the discussion of land tax, see, for example, Cang Zhifei 臧知非, *Qin Han fuyi yu shehui kongzhi* 秦漢賦役與社會控制 [*Taxation and social control under Qin and Han empires*] (Xi'an: Sanqin, 2012), 36-68; Lewis, "Early Imperial China, from the Qin and Han through Tang," in Monson and Scheidel, eds., *Fiscal Regimes and the Political Economy of Premodern States*, 282-307, esp. 285-286.

[85] In the Han and probably also in the Qin empire, the state was regularly providing food and conferring other benefits such as exemption from labor services on the social groups recognized as economically vulnerable, first and foremost, the elderly. See, for example, A.F.P. Hulsewé, "Han China – A Proto 'Welfare State'?: Fragments of Han Law Discovered in North-Western China," *T'oung Pao* 73.4-5 (1987): 265-285; Moonsil Lee Kim, "Food Distribution

functioning of civil and military communication and transportation systems where oxen served as beasts of burden and horse relays were used to deliver messages. Cavalry units and officials travelling on horseback equally relied on the stores of hay and straw for their horses, as did the state-managed husbandry farms for their cattle. Additionally, hay and straw were used as construction and matting materials.[86]

Stimulating agricultural production for taxation purpose was one of the chief declared goals of the mid-fourth century BCE reforms in Qin.[87] Population growth and agricultural expansion of the Warring States era meant the growth of the potential taxation base.[88] However, special political-economic organization had to be developed in order to efficiently harness this growth for maximizing the state revenue from agriculture, and it is here that the Qin reformers achieved their most enduring institutional breakthrough.

While the forms of communal land tenure in North China prior to the Warring States era and the existence of systematic communal land distributions remain debated topics in the lack of

during China's Qin and Han Periods: Accordance and Discordance among Ideologies, Policies, and Their Implementation," Ph.D. dissertation, University of California, Santa Barbara, 2014, 102-123.

[86] On the use of hay and straw in military provisioning, transportation, construction, and storage, see, for example, Zhu Degui 朱德貴 and Liu Weiwei 劉威威, "Qin Han jiandu zhong de "tian lü" jiqi fazongzhi" 秦漢簡牘中的《田律》及其法宗旨 ["The statute on fields" in the Qin and Han manuscripts on bamboo and wood and its purposes], *Chutu wenxian yanjiu* 15 (2016): 180-216, esp. 203-207.

[87] As is consistently reiterated in the early chapters of the *Book of Lord Shang*, see, for example, Chapter 2 "Order to cultivate wastelands" (*ken ling* 墾令), in *Shangjun shu zhuizhi*, 1.6-19. For the early date of this chapter that was probably composed during Shang Yang's lifetime, see Pines, "Dating a Pre-Imperial Text," 19. For a discussion of the Qin policies to encourage agricultural production, see Cai Wanjin 蔡萬進, *Qin guo liangshi jingji yanjiu* 秦國糧食經濟研究 [*Studies in the grain economy of the Qin state*] (Zhengzhou: Daxiang, 2009),17-20.

[88] For the introduction of iron tools in agriculture, particularly, iron plowshare, see Bray, "Agricultural Technology and Agrarian Change in Han China," 3-13; and Joseph Needham and Francesca Bray, *Science and Civilisation in China*, vol. 6: *Biology and Biological Technology*, part II: *Agriculture* (Cambridge: Cambridge University Press, 1984), 161-169.

reliable source evidence[89], the state-orchestrated system of land distribution in mid-Warring States Qin is attested in numerous excavated documents. The system of "assigning land and residential plots according to the level of social ranks" (*jueming tianzhai* 爵名田宅) operated at two levels and pursued two distinct purposes: first, the reproduction of smallholder farming households, each of which was entitled to one *qing* 頃 (ca. 4.6 ha) of arable land, and, second, incentivizing subjects for military effort by additional grants of land to the holders of social ranks (*jue* 爵) awarded for the achievements at the battlefield.[90] Alternative venues to the holding of rank, other than cutting

[89] A number of late Warring States and Han texts refer to the system of communal landholding known as the "well-fields" (*jing tian* 井田), under which farmers formed groups of eight households. These households were assigned uniform land parcels and were also responsible to collectively tilling the field which yields were used to pay state taxes and/or to carry out communal sacrifices. According to some texts, the land was subject to regular redistributions among households to prevent any of them enjoying the advantages of a more fertile or conveniently located plot for a long period of time. Whether or not this idealized scheme reflects any sort of historical reality was subject to endless debates that remain unresolved even after the new sources of evidence were brought in. Frank Leeming, for example, concludes his insightful study of aerial topographic maps of North China with a conjecture that the observed regular layout of agricultural fields might be inherited from the planned landscapes of "well-filed" type. See Leeming, "Official Landscapes in Traditional China," *Journal of the Economic and Social History of the Orient* 23.1/2 (1980): 153-204. Modern scholars tend to diasagree with this conclusion and rather attribute the origins of planned agricultural landscape to the mid-fourth century Qin reforms, which will be discussed below. For the debates about the historicity of the "well-field" system and their relationship to the ideological shifts in twentieth-century China, see, for example, Zhou Xinfang 周新芳, "Jing tian zhi taolun de kunnan yu buzu" 井田制討論的困難與不足 [Difficulties and limitations of the discussion of the well-field system], *Anhui shixue* 安徽史學 4 (1998): 12-14; Zhou Shucan 周書燦, "Minguo yilai jing tian youwu zhi bian zonglun" 民國以來井田有無之辨綜論 [An overview of the debate about the existence of the well-fields since the Republican period], *Henan shehui kexue* 河南社會科學 24.1 (2016): 100-112; and Ling Peng 凌鵬, "Jing tian zhi yanjiu yu jindai Zhonguo – 20 shiji qian banqi de jing tian zhi yanjiu jiqi yiyi" 井田制研究與近代中國—20 世紀前半期的井田制研究及其意義 [The study of the well-field system and modern China: Study of the well-field system in the first half on the twentiteth century and its meaning], *Shehuixue yanjiu* 社會學研究 4 (2016): 52-73. While the controversy about the historical authenticity of the "well-field" system as described in transmitted texts became largely a matter of ideology, a possible prototype of communal landholding schemes of the late Warring States and Han thinkers may have been the lineage landholdings of the Zhou era, for which see, for example, Li Feng, *Bureaucracy and the State in Early China*, 154-158. However, inscriptions on the ritual bronze vessels, the main source of our knowledge about these landholdings, focus primarily on the granting of and disputes over land rather than on the organization of agricultural labor and distribution of land among the rank-and-file lineage members. So far, to my knowledge, next to nothing is known as to whether or not the regular redistribution of land was practiced or whether the plots were worked individually or collectively.

[90] For the relationship between the level of rank and the size of landholding established during the Shang Yang's reforms, see *Shiji*, 68.2230, and *Shangjun shu zhuizhi*, 5.119, which stipulates that an additional *qing* of land should be awarded per each level of rank. A much steeper hierarchy of rank-graded landholdings is outlined in the early Western Han "Statute on households" (*hu lü* 戶律) from Zhangjiashan, according to which the holders of the lowest rank were entitled to 1.5 *qing*, while the highest (19th) rank corresponded to 95 *qing*. Obvious cleavages in the grading (9th rank entitled to 25 *qing* and 10th to 74 *qing*) serve as a division line between the ranks that could be granted to

off heads in battle, became available toward the end of the Warring States period. Ranks could be granted in exchange for large donations of grain to the state, but such grants remained exceptional before the imperial Qin period.[91]

The functioning of land distribution was conditioned on the government's ability to establish control over land resources by means of surveying. The first land survey is recorded in Guanzhong in 350 BCE, shortly before the introduction of the land distribution scheme.[92] The earliest extant survey document dates from September 27, 209 BCE, and was discovered during the 1979–1980 excavation of the Warring States cemetery at Haojiaping in the north of the present-day Sichuan Province. This is a legal document, probably an ordinance that adjusts the already existing norms of land surveying to the local conditions in mountainous northern Sichuan.[93] It prescribes the demarcation of the one-*qing* land lots that could then be assigned to individual households.[94] Cadastral mapping (*yu* 輿) of fields opened-up for cultivation and allocated to

meritorious common subjects ("people's ranks", *minjue* 民爵) and those that were restricted to salaried state officials ("officials' ranks", *guanjue* 官爵). See Peng Hao, Chen Wei, and Kudō Motoo 工藤元男, eds., *Ernian lüling yu Zouyanshu: Zhangjiashan ersiqihao Han mu chutu falü wenxian shidu* 二年律令與奏讞書：張家山二四七號漢墓出土法律文獻釋讀 [*The Statutes and Ordinances of the Second Year and The Collected Cases Submitted for Revision: Annotated Legal Manuscripts Excavated from the Han Tomb No. 247 at Zhangjiashan*] (Shanghai: Shanghai guji, 2007), 216-218, slips 310-316; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 790-793.

[91] The only pre-imperial case of ranks being granted for contributions of grain is recorded in 243 BCE when severe famine broke out in the state of Qin, and the government announced that one level of rank would be awarded for donation of one thousand *shi* (ca. 30 tons) of grain, see *Shiji*, 6.224.

[92] *Shiji*, 5.203.

[93] For the Haojiaping ordinance as an adjustment of the original legal norm to the local conditions in northern Sichuan, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 710-711, n. 47.

[94] Sichuan sheng bowuguan et al., "Qingchuan xian chutu Qin gengxiu tianlü mudu," 1-21; Hulsewé, *Remnants of Ch'in Law: An Annotated Translation of the Ch'in Legal and Administrative Rules of the 3rd Century B.C. Discovered in Yün-meng Prefecture, Hu-pei Province, in 1975* (Leiden: Brill, 1985), 211-215.

farming households is also recorded in the Liye area that fell under the Qin control in 222 BCE.[95] Local officials faced prosecution for the failure to survey and distribute arable land in a timely fashion.[96]

Land surveying and distribution in Haojiaping and Liye areas were carried out in the frontier environment where unoccupied land was available. This condition did not necessarily apply on the old agricultural lands in Guanzhong and elsewhere where official surveyors had to deal with existing patterns of landholding. This problem was appreciated by the ideologists of the Qin reforms who advocated a radical program of total repopulation of the Wei River basin, in course of which the settlers enticed from the Great Plain and Shandong were to constitute the bulk of agricultural population, while the people of Qin could fully dedicate themselves to military service.[97] While the feasibility of such resettlement is doubtful, the foundation of thirty-one new counties in Guanzhong during the Shang Yang reforms probably involved opening up of large swaths of land for agricultural use, which was made use of in the government-managed distribution scheme.[98]

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[95] *Liye Qin jiandu*, vol. 1, 345-347, tablet 8-1519. This document is translated and discussed below with regard to taxation rates and collection procedure.

[96] *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759.

[97] *Shangjun shu zhuizhi*, 4.92. The treatise that advocates this program is titled "Attracting the people" ("Lai min" 徠民) and belongs to the later layer of the *Book of Lord Shang*. It probably dates from around 250 BCE and may contain reflections on the Qin colonization policies already in place along with recommendations for a more radical implementation of these policies. For the date of the chapter, see Pines, "Dating a Pre-Imperial Text," 17-18. The resettlement program advocated in this treatise has recently been analyzed in Pines, "Waging a Demographic War: Chapter 15 ("Attracting the People") of the *Book of Lord Shang* Revisited," paper presented at the International Workshop "Making Qin Great Again: New Perspectives on the *Shang Jun Shu*," University of Bonn, November 16–17, 2018.

[98] For the foundation of new counties during in course of the Shang Yang reforms, see *Shiji*, 68.2232. Japanese scholars, notably Kimura Masao 木村正雄, put forward a theory according to which these and other new counties were founded in the virgin lands opened up for cultivation, what they called "the secondary agricultural lands" (*dainiji nōchi* 第二次農地). See Kimura, *Chūgoku kodai teikoku no keisei.* Other scholars, however, pointed out that in the Qin case counties were founded in the core lands of the polity and not on the fringes as Kimura's theory suggests. See Tsuruma, *Shin teikoku no keisei*, 537-538. While large land reclamation projects were carried out in Guanzhong during

Topographical data collected by modern scholars confirms that much of the agricultural landscape in Guanzhong was at some point reorganized according to the Qin surveying standards, attesting to an unprecedented (and unrepeated) state effort to rebuild the agricultural landscape of an entire region.[99] The achievements of the Qin program of centralized land distribution were made possible by the spread of iron agricultural tools (for the state's role in production and distribution of these tools, see below in the section on the Qin state economy) and hydraulic projects that allowed the bringing of more virgin land under cultivation.[100] Yet, as the terse *Shiji* account seems to suggest, it involved considerable reshuffling of the existing settlement and land tenure patterns,[101] the scale of which may be partly reflected by the dramatic change in the material culture that coincided with mid-fourth century BCE reforms.[102]

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the late Warring States period, it seems highly unlikely that almost the entire Wei River valley across which these counties were distributed remained untouched by the Qin settlement until the mid-fourth century BCE, and archaeological evidence clearly indicates that much of the region where Qin established its counties was populated.

[99] For the pioneering study of aerial topographical maps of North China, see Leeming, "Official Landscapes in Traditional China," 153-204. As noticed above, Leeming believed that this planned agricultural landscape reflected the realities of the Zhou "well-field" system. Other scholars have since pointed out that the field layout described by Leeming rather conform to the Qin surveying standard, and the whole scheme is much better interpreted as the product of Shang Yang's land reform and intervention in settlement pattern. See Lewis, *Sanctioned Violence in Early China*, 63-63; and Satake Yasuhiko 佐竹靖彦, *Chūgoku kodai no tasei to yūsei* 中国古代の田制と邑制 [*Field system and settlement system in ancient China*] (Tokyo: Iwanami shoten, 2006), 136-146.

[100] The best-known state-managed irrigation scheme carried out in Guanzhong in mid-third century BCE was the construction of the Zheng Guo Canal 鄭國渠, but it was probably preceded by similar projects on smaller scale. See Brian Lander, "Environmental Change and the Rise of the Qin Empire: A Political Ecology of Ancient North China," Ph.D. dissertation, Columbia University, 2015, Chapter 5.

[101] According to the *Shiji* narrative of the Shang Yang reforms, "[he] assembled the small districts, towns, and settlements into counties" 集小鄉邑聚為縣, which was immediately followed by the land survey, the establishment of the new field boundaries, and evening out of taxes. See *Shiji*, 68.2232.

[102] Lothar von Falkenhausen observes that "the funerary use of vessel assemblages derived from Late Western Zhou sumptuary sets suddenly ceased in the mid-fourth century BC – perhaps not coincidentally just about the time when the reforms of Shang Yang (d. 338 BC) abolished the hereditary aristocracy and ranked the entire population in a twenty-tiered bureaucratic-cum-military hierarchy governed by draconian laws. Qin tombs from after this time… feature completely different constellations of vessels." See Falkenhausen, *Chinese Society*, 319.

The key advantage of land distribution was that it immediately rendered agricultural produce measurable for fiscal purposes and spared the state the effort of time-consuming inquiry into the state of local land tenure. This advantage was of particular importance under specific political conditions and in certain geographic areas.

Creating fiscal base: colonization and taxation

Observations on the geography of Qin settlement of conquered lands suggest colonization played an important role in financing military campaigns that were taking Qin armies further and further from their supply base. Archaeological and textual evidence summarized in the previous section allows the identification of three major regions that experienced considerable change in their material culture during the Warring States period. This change involved the appearance of large numbers of non-local burials, including those with typical features of Qin funeral customs such as flexed burial, east-west tomb orientation, and "catacomb" burials. These tombs are associated with the Qin settlers whose arrival is independently attested by transmitted historical records and should have been accompanied by surveying and distribution of land similar to the one recorded in Haojiaping and the Qianling documents (see Map 2.2).

The first of these regions stretched to the east of the Yellow River and in the Sanmenxia area. It secured access to the Great Plain, which was an arena of lengthy and bloody campaigns against the states of Wei, Zhao, and Han. The second colonization area was on the Chengdu plain in Sichuan and along the communication routes connecting it to the Guanzhong. This region provided all-important logistical support for the major campaign along the Yangzi against the state of Chu in 279–278 BCE. Finally, settlement was carried out along the course of the Han River and on the conquered Chu lands to the north of Middle Yangzi. This area became the bulwark against

the remaining Chu possessions to the north of the Dabie Mountains 大別山, in the Huai River valley, and to the south across the Yangzi.

From the fiscal viewpoint, state-orchestrated colonization amounted to the creation of a taxation base within a very short period of time. The spatially limited scope of this base was compensated for by its proximity to the war theaters where the Qin military was deployed and where much of the tax grain was consumed. By reducing transportation costs, such deployment of the taxation base increased the net amount of grain available for state consumption. In this regard, a note is due on the provisioning of armies in the field during the Warring States period. Living off the enemy's storehouses was a common practice directly advocated in some influential texts, including the *Book of Lord Shang*.[103] This said, the protracted campaigns of attrition that characterized contemporary warfare made supply lines between the armies in the field and the agricultural base in the rear vital to military success, as is vividly illustrated by the example of the Changping 長平 campaign (262–260 BCE) when the Zhao army was forced to surrender after its supply lines were severed by the Qin troops.[104] The strategists of the age took it for granted that an army embarking on a major campaign should be provisioned, preferably by water, from a supply base in the rear.[105]

Taxation bases in proximity of the loci of military consumption also reinforced the government's capacity to directly operate military finance and reduced the need to rely on private merchants. While the Qin was familiar with markets, and the *Book of Lord Shang* mentions "army markets" (*jun shi* 軍市) that were probably used for military procurement, it also states that

[103] *Shangjun shu zhuizhi*, 4.92.

[104] *Shiji*, 73.2333-2335.

[105] *Shiji*, 70.2290-2291.

merchants should not be allowed to privately transport grain to such markets, and emphasizes the "the suppliers of grain will have no private [benefits]".[106] Here, the traders (*shang* 商) figure more as state agents charged with distributing the grain collected and delivered by the government than as private entrepreneurs making profits from participation in the military procurement, as became typical in the later periods.[107] Even these markets had limited use in the official supply system. Excavated legal and administrative texts attest to the overwhelming dominance of "staple finance" in the Warring States and imperial Qin so far as the official rations and emoluments were concerned.[108]

Finally, the dependence of settlers on state land grants, government grain reserves for seed grain and rescue in case of crop failure, irrigation schemes such as Dujiangyan 都江堰 on the Chengdu Plain in Sichuan, and protection against the often hostile local populace reduced incentives for tax resistance and favored compliance.[109] This facilitated administration of the newly conquered territories and created conditions for intensive extraction.

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[106] *Shangjun shu zhuizhi*, 1.15-16; translated in Pines, *The Book of Lord Shang*, 129.

[107] For a typical organization of military procurement in the Ming Empire (1368–1644) that struggled to motivate private merchants to contribute to the state effort to supply frontier armies, see, for example, Perdue, *China Marches West*, 68-74. For the vital role that the merchants played in providing food and transport for the armies on campaign in the Qing Empire (1644–1911), see Ulrich Theobald, *War Finance and Logistics in Late Imperial China: A Study of the Second Jinchuan Campaign (1771–1776)* (Leiden and Boston: Brill, 2013), 8.

[108] For the military grain rations, see *Shuihudi*, 82-83, slips 11-15; Hulsewé, *Remnants*, 108-109. For the rations issued to local officials, see, for example, *Liye Qin jiandu*, vol. 1, 265, tablet 8-1031; 268, tablet 8-1046; 271-272, tablet 8-1063; 297, tablet 8-1238; 313, tablet 8-1345+8-2245; 356, tablet 8-1550; vol. 2, 23, tablet 9-16; 87, tablet 9-202+9-3238; 149-150, tablet 9-528+9-1129. In contrast to the Western Han period, there is no record of Qin officials receiving monetized salaries. For the concept of "staple finance" as payments to and from the state in subsistence goods, see Terence D'Altroy and Timothy Earle, "Staple Finance, Wealth Finance, and Storage in the Inka Political Economy," *Current Anthropology* 26.2 (1985): 187-206. The authors point out directness of payment as one of the major advantages of "staple finance" and suggest this system was most appropriate for empires with dispersed activities that could be supported by regional mobilizations. The later characteristic applies to the empire of Qin with its networks of local administration and military garrisons.

[109] For the construction of Dujiangyan Dam and its impact on agricultural production on the Chengdu Plain, see Sage, *Ancient Sichuan*, 148-150; Yang Kuan, *Zhanguo shi*, 62.

Tax collection

Considering the importance of the in-kind land taxation as a source of state revenue, one might expect the excavated Qin and Han statutes to contain detailed regulation of tax rates, collection procedures, and agent behaviors. Indeed, all major collections of the Qin and Han laws published to this date include "Statutes on fields" (*tian lü* 田律, also translated as "Statutes on agriculture") that deal specifically, though not exclusively, with the issues of agricultural management such as land surveying and distribution, reporting on the state of crops, types and amount of seed grain to be used, and protection of crops against damage by grazing cattle.[110] The three most extensive versions of the statute, the Qin texts from Shuihudi and the Yuelu Academy collection and the Han text from Zhangjiashan, contain regulations on taxation rates. However, these only refer to the tax in hay and straw. The respective articles of the Shuihudi and Zhangjiashan statutes stipulate that three *shi* (ca. 60 liters) of hay and two *shi* (ca. 40 liters) of

[110] The "Statutes on fields" open the collection of statutes excavated from tomb no. 11 at Shuihudi in 1975, see *Shuihudi*, 19-22, slips 1-12; Hulsewé, *Remnants*, 21-25. This was the earliest discovery of the Qin "Statutes on fields," followed by a number of slips excavated in 1989 from tomb no. 6 at Longgang 龍崗 (Yunmeng County, Hubei Province) that can with confidence be attributed to this statute. See Zhongguo wenwu yanjiusuo 中國文物研究所 and Hubei sheng kaogu wenwu yanjiusuo 湖北省考古文物研究所, eds., *Longgang Qin jian* 龍崗秦簡 [*Qin slips from Longgang*] (Beijing: Zhonghua, 2001). A collection of Qin documents acquired in the Hong Kong antiques market by the Yuelu Academy (Changsha, Hunan Province) in 2007 includes at least two groups of articles from the "Statutes on fields", see *Yuelu shuyuan cang Qin jian*, vol. 4, 103-106, 125, 161. One of the most detailed versions of the "Statute" was excavated from the early Western Han tomb at Zhangjiashan, see *Ernian lüling yu Zouyanshu*, 186-194, slips 239-257; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 692-718. All of these collections are unofficial copies of statutes, and none of them contains the full version of the contemporary "Statutes on fields". While there is clear relationship between all these versions as well as between the Qin and Han "Statutes on fields" and other legal regulations such as the Haojiaping ordinance, it is unclear whether the equally obvious differences are explained by the actual changes in legislation or by selective copying. For a discussion of the relationship between various recensions of the "Statutes on fields" in the Qin and Han manuscripts, see Yamada, *Shin Kan zaisei shūnyū*, 32-59; Zhu Degui and Liu Weiwei, "Qin Han jiandu zhong de "tian lü," 182-184; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 692-718, esp. 710-711, n. 47; Maxim Korolkov, "Statut o poliakh" (*tian lü*) iz rannekhanskogo pogrebenikja #247 v Zhangjiashan i nekotorije problemi rekonstrukcii drevnekitajskogo zemel'nogo zakonodatelstva" ["Statutes on fields" (*tian lü*) from burial no. 247 from Zhangjiashan and some problems of the reconstruction of the ancient Chinese land legislation], in *Obshestvo i gosudarstvo v Kitaye* [*State and Society in China*] 40 (2010): 86-107.

straw should be delivered from each *qing* of agricultural fields. The tax is referred as the "hay and straw [delivered per] *qing* [of land]" (*qing chu gao* 頃芻稾), and some scholars believe it was collected with no regard to whether or not the land was under cultivation.[111] Important as it was for the maintenance of state-managed husbandry farms, this revenue was supplementary to the main agricultural tax on grain and other crops.

This tax underwent important changes between the late Warring States and the beginning of the Western Han period. While neither the late Warring States nor imperial Qin statutes (Shuihudi and Yuelu Academy collection, respectively) referred to the commutation of this in-kind tax to cash, the early Western Han "Statute on fields" from Zhangjiashan presupposed such option by establishing the official conversion rate at 55 cash per *qing* of land (ca. 4.6 ha).[112] A record from the Qianling county archive makes it clear that commutation was already practiced at least at some locales of the Qin Empire, even though it might not yet had been recognized by the imperial law:[113]

⿴芻稾志。 AI
□□□□□□□□ AII
·凡千一百七錢。 AIII
都鄉黔首田啓陵界中，一頃卌一畝，錢八十五。 BI
都鄉黔首田貳【春界中者，二頃卌七畝，錢百卌九。】 BII
·未入者十五⿴ BIII

Left register
Account of hay and straw [tax].
…

[111] *Shuihudi*, 21, slips 8-9; Hulsewé, *Remnants*, 23-24; *Yuelu shuyuan cang Qin jian*, vol. 4, 103, slips 106-108; *Ernian lüling yu Zouyanshu*, 187-188, slips 240-241; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 696-697.

[112] Op. cit.

[113] *Liye Qin jiandu jiaoshi*, vol. 2 (Wuhan: Wuhan daxue, 2018), 152-153, tablet 9-543+9-570+9-835.

Altogether 1,107 cash.

Right register
[Collected from] the fields of the commoners of Town District located within the borders of Qiling [District], 1 *qing* 41 *mu*, 85 cash.
[Collected from] the fields of the commoners of Town District located within the borders of Erchun District, 2 *qing* 47 *mu*, 149 cash.
Fifteen [households] have not paid.

This document suggests a commutation rate of 60 cash per *qing*, which is close to the legally prescribed rate at the beginning of Western Han. Another Qianling document, dating from the first reign year of the Second Emperor of Qin (209 BCE), mentions the amount of 1,134 cash in payment of the land tax in hay and straw, although it does not specify commutation rate.[114] These records indicate that the Han fiscal arrangement goes back to the imperial Qin period, although it may not have been an empire-wide policy, rather a specific frontier practice. Later in this chapter, we will consider the implications of this practice in terms of the distributive effects and agency relationship in the Qin fiscal system.

Surprisingly, neither Shuihudi nor Zhangjiashan statutes make any reference to the grain tax, neither to the applied taxation rates nor to the collection procedure. In fact, references to the land tax in grain ("tax on grain crops," *zu he jia* 租禾稼) across the entire corpus of excavated legal texts from the late Warring States and early imperial periods are so fragmentary and perplexing that the volume of scholarship on this tax was until recently considerably smaller than that on the supposedly less important tax in hay and straw.[115] In Appendix A, I reconstruct the

[114] *Liye Qin jiandu*, vol. 2, 196, tablet 9-743.

[115] Yamada Katsuyoshi and Yang Zhenhong are among the few scholars who have attempted a reconstruction of the Qin and early Western Han taxation of agricultural crops based on the systematic analysis of the excavated legal documents and arithmetic manuals, leading to original conclusions about the principles of land taxation in Qin that are summarized in the following discussion. See Yamada, *Shin Kan zaisei shūnyū*, 32-59; Yang Zhenhong, "Cong xinchu jiandu kan Qin Han shiqi de tianzu zhengshou," 331-342; Yang Zhenhong, "Longgang Qin jian zhu "tian", "zu" jian shiyi buzheng," 164-186; Yang Zhenhong, "Qin Han shiqi de tianzu zhengshou," 119-141. See also Nan Yuquan, "Longgang Qin jian suo jian chengtian zhidu," 236-240. It should be pointed out that Yamada's study

procedure for the collection of grain tax under the Qin system of land taxation, which also helps to explain the seeming negligence of in-kind taxation of crops in the excavated "Statutes on fields."

Instead of fixing the tax rate as a portion of a notional average harvest, which became a common practice in the later periods, the Qin officials were annually reassessing extraction levels on the basis of actual crop conditions. Information was collected through monitoring the area of land under cultivation, the weather conditions, the impact of natural disasters, changes in the soil quality, agricultural equipment utilized by the farmers, and so on.[116] Local officials were required to provide regular updates to the central government, which decided on tax quotas. The quotas were then sent to county authorities who split them among subordinate districts, farming communities, and eventually, the taxpaying households. It is now possible to explain why the excavated statutes contain no reference to the norms of crop taxation, either per unit of land as in the case of hay and straw tax, or in terms of the proportion of a nominal harvest. Such fixed rates simply did not exist under the Qin system.

The land taxation regime of the Warring States Qin enabled the extraction of a greater portion of agricultural surplus at the cost of high monitoring expenses. This favored exploitation of a spatially circumscribed fiscal base for which central authorities possessed detailed knowledge of available land resources and their distribution. As discussed earlier in this section, on the territories conquered in course of the middle and late Warring States period, such a base was created as an outcome of the state-sponsored colonization and land distribution.

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appeared in 1993, long before the full publication of Zhangjiashan documents that provide much important evidence on land taxation. Neither of the authors could make use of the legal statutes and arithmetic manual from the Yuelu collection, nor of the important documents on land taxation in the Qianling County archive excavated at Liye, neither of which were available until after the publication of their research.

[116] For legal regulations concerning the reporting on the condition of crops, see *Shuihudi*, 19-20, slips 1-3; Hulsewé, *Remnants*, 21-22.

Actual extraction rates under the Qin system varied depending on the location of tax-paying communities. Lands closer to the administrative centers, which were also the concentrations of state-supplied consumers, were subject to higher taxation than more remote settlements. Appendix A demonstrates that the highest recorded tax rate in the Qianling County approached 10% of produce, which supports traditional estimates of extraction levels under the Qin and is much higher than the tax rate of 1/30 of nominal agricultural output applied for most of the Western Han period.[117] Yet it is important to remember that the actual extraction in Qin was not based on the notional average yields assigned to a certain area of land as it came to be in the Han Empire no later than the beginning of the first century BCE.[118] Recent studies suggest that the Han land tax regime adopted fiscal practices of the Warring States polities on the Great Plain and in the Shandong region that also applied tax rates based on the notional average harvests, sometimes graded by the quality of land.[119]

Practical implementation of the Qin land taxation regime heavily depended on the efficiency and integrity of state agents in charge of processing information. Excavated legal fragments record abuses that the senior administrators sought to prevent and penalize.[120] To monitor the behavior of officials, the Qin government deployed its "scribal capacity" by requiring

[117] For the changes in taxation rates during the Western Han period, see *Hanshu* 24A.1127-1135.

[118] "Debates on Salt and Iron" (*Yantie lun* 鹽鐵論), a compilation of the materials of the 81 BCE court debate on financial policies, provides a description of the contemporary land taxation regime. Although the formal tax rate was fixed at 1/30 of the average crop yield, actual extraction levels varied dramatically from year to year, leaving much of the surplus product unclaimed after a bumper crop and threatening farmers' subsistence after crop failures. See *Yantie lun*, ed. Wang Liqi 王利器 (Beijing: Zhonghua, 2011), 3.191.

[119] For the evidence on the Warring States land taxation systems other than that of the Qin, and on the land taxation in the Han Empire, see Yang Zhenhong, "Cong xinchu jiandu kan Qin Han shiqi de tianzu zhengshou," 331-342.

[120] For the analysis of the Longgang legal fragments dealing with abuses of tax-colleciton procedures, see Yang Zhenhong, "Cong xinchu jiandu kan Qin Han shiqi de tianzu zhengshou," 333; and Yang Zhenhong, "Longgang Qin jian zhu "tian", "zu" jian shiyi buzheng," 173-185.

multiple independent accounts susceptible to cross-checking. Strict deadlines were applied for submission of periodic accounts, and an elaborate system of penalties was instituted for functionaries who failed to meet these requirements. The central government also sought to employ the heads of farming communities and even common farmers as a check on local officials (see Appendix A for detailed discussion).

The likely impact of these measures on transaction costs and principal-agent relationships are easy to see. Monitoring costs soared with the territorial expansion and extension of communication lines. Alienation of the government's tax-collecting agents, the local officials, who were subject to intensive monitoring and exposed to criminal penalties for intentional or unintentional violation of the complex collection procedures, hindered the formation of sustainable, mutually relationship between the central government and its local fiscal agents. The imperial system of land taxation had to find a new equilibrium, the process that unfolded in the decades after the fall of the Qin Empire.

It is important to remember that the Qin was not completely unfamiliar with fixed-rate land taxation. As has already been mentioned, the supplementary land tax in hay and straw was collected as a fixed amount per unit of land, the practice that endured into the Western Han period. The difference with the tax on agricultural produce is likely explained by considerable fluctuations in crop yields, while availability of grass could have been taken for granted, at least in the temperate climate zone of North China where the core of the Qin state was located.[121] Eventual

[121] The Qin law also allowed substituting straw for hay, see *Shuihudi*, 21, slips 8-9; Hulsewé, *Remnants*, 23-24. Insofar as hay is essentially a by-product of cereals, in case of crop failure, it could be substituted with the respective amount of straw, which is dried grass. The straw to hay value ration was set as 1:3 in the early Western Han "Statute on fields", see *Ernian lüling yu Zouyanshu*, 187, slip 241; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 696-697.

transition to the fixed-rate land taxation can therefore be seen not only as an adoption of non-Qin practices but also as an extension of principles already applied in the Qin fiscal system.

Labor services

Hostile to their dynastic predecessor, the Han thinkers were particularly vehement in attacking Qin rulers' lack of moderation in exploiting their subjects' labor. One of the most influential critics, Dong Zhongshu (179–104 BCE), accused Qin of increasing labor duty thirty-fold compared to idealized antiquity and initiating a labor service regime that survived into the Han era, when each adult male was required to perform two years of service, including one year of military service either at the frontier or as a guard at the capital and one year of labor service, and then owed government one month of labor every year until reaching the age of semi- and then full retirement.[122] Others described in vivid colors the despair of the Qin subjects who preferred suicide to the intolerable burden of state labor extractions.[123] Modern scholars argued that the labor levies were the key element of the Qin fiscal system in terms of their importance for the central

[122] *Hanshu*, 24A.1137. This brief passage from Dong's memorial included in the "Treatise on Food and Currency" (*Shihuo zhi* 食貨志) of the *Hanshu* is the only systematic description of the labor and military services system in the early Chinese empires and as such became subject of intense scholarly discussion, especially regarding the ways the sentence should be punctuated. See, for example, Watanabe Shinichiro, "Kandai kōsotsu seido no saikentō – Fuku Ken-Hamaguchi setsu hihan" 漢代更卒制度の再検討―服虔−濱口説批判 [Han Dynasty institution of substitute servicemen revisited – a criticism of the Fu Qian – Hamaguchi theory], *Tōyōshi kenkyū* 51.1 (1992): 16-22. Zhang Jinguang 張金光, *Qin zhi yanjiu* 秦制研究 [*Study of the Qin regime*] (Shanghai: Shanghai guji, 2004), 205-265; Yang Jianhong 楊劍虹, "Qin Han de koufu, yaoyi, bingyi zhidu xintan" 秦漢的口賦、徭役、兵役制度新探 [A new study of the Qin and Han regimes of capitation tax and labor and military services], in Yang Jianhong, *Qin Han jiandu yanjiu cungao* 秦漢簡牘研究存稿 [*Studies in the documents on bamboo and wood from the Qin and Han periods*] (Xiamen: Xiamen daxue, 2013), 362-371; Yang Zhenhong, "Yao, shu wei Qin Han zhengzu jiben yiwu – gengzu zhi yi bu shi "yao" 徭、戍為秦漢正卒基本義務－更卒之役不是 "徭" [*Yao* and *shu* as the two major services provided by adult males in the Qin and Han empires – labor of conscripts working in shifts was not a *yao*], in *Chutu jiandu yu Qin Han shehui (xubian)*, 181-209.

[123] *Shiji*, 112.2958.

government.[124] High levels of labor mobilization under the Qin Empire are also reconstructed from the archaeological material, even though such calculations imply very broad margins of error.[125]

As argued previously, Qin's emphasis on labor services as a major component of its fiscal system was probably a function of Guanzhong's geography that favored direct control over people as well as of Qin's lag in economic development, particularly the late monetization of its economy. Traditional Chinese theories about the origins of fiscal institutions give labor services pride of place as the fountainhead of regular state extractions.[126] Matching land to labor was at the top of economic agenda for almost all Warring States reformers, including Shang Yang. Considerable tracts of state farms were tilled by laborers organized and managed by the state (see subsection on the state economy below),[127] but direct command of agricultural labor probably did not represent the dominant mode of labor service organization.[128]

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[124] Wang Yuquan 王毓銓, "Minshu" yu Handai fengjian zhengquan" "民數" 與漢代封建政權 [Population registers and the feudal political regime of the Han period], in Wang Yuquan, *Laiwu ji* 萊蕪集 (Beijing: Zhonghua, 1983), 33-64; Shen Gang 沈剛, "Liye Qin jian suojian shuyi bianxi" 里耶秦簡所見戍役辨析 [An analysis of the frontier service records in Qin documents from Liye], *Jianbo yanjiu 2015*. *Qiu dong juan* 秋冬卷, ed. Yang Zhenhong and Wu Wenling (Guilin: Guangxi shifan daxue, 2015), 93-103.

[125] For a very high tally of two million people mobilized at various imperial projects under the First Emperor and his successor, see Gideon Shelach, "Collapse or transformation? Anthropological and archaeological perspectives on the fall of Qin," 131.

[126] Many studies of labor services regime in Early China belong to Japanese scholars, starting from the groundbreaking article by Miyazaki Ichisada 宮崎市定, "Kodai chūgoku fuzei seido" 古代中国賦税制度, *Ajia shi kenkyū* アジア史研究 1 (1957): 67-74. For a summary of pre-1990-s Japanese scholarship of labor service institutions, see Yamada, *Shin Kan zaisei shūnyū*, 263-281.

[127] One document excavated at Liye records an official investigation into Qinling County's failure to deploy convicts for tilling fields, see *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759. A Qin ordinance from the Yuelu Academy collection prescribes the transfer of convicted criminals to Dongting Commandery where "there is an abundance of locations [available for opening up] agricultural fields" 多田所, which also implies the use of convict labor in agriculture. See Chen Songchang, ed., *Yuelu shuyuan cang Qin jian*, vol. 5 (Shanghai: Shanghai cishu, 2017), 42, slip 12. Employment of convicts in agricultural work will be further discussed in Chapter 3.

[128] This is not to say that labor and military conscripts were never again used in agricultural production. Starting from the mid-Western Han period, the system of military farms (*tun* 屯) worked by conscripted levies became one of the major modes of supplying garrisons on the empire's extensive north-western frontier. Later in the Chinese history, this organization was often projected to the interior regions of the empire in order to increase agricultural production

During the mid- and late Warring States period, common subjects were mobilized for two purposes: military and labor services. The latter consisted primarily of construction and transportation, including grain shipment.[129] In practice, military and labor services were never strictly segregated, and the majority of untrained farmers levied for military service ended up performing purely labor tasks: collecting wood and fodder, building walls, or transporting materials. Their labor was particularly important in the frontier regions. Here I will focus on the institutions specifically designed to supply labor for state projects.

The most important of them was a one-month per year term of labor (*yao* 徭) obligatory for all adult males as well as for minors of serviceable age, with the exception of holders of social ranks above the 4th level.[130] The *yao* could be levied either directly by the central government or by commandery and local authorities who had to request permission to mobilize labor and had to provide estimates of labor expenditure in their projects. These plans specified the number of laborers needed and the duration of service calculated on the basis of applied productivity norms. In the case of local labor projects launched by the county authorities, such estimates had to be provided to the central government or, later, to the commandery authorities who granted their

in strategically important areas devastated by wars or natural disasters. This settlement policy may be viewed as an institutional outgrowth of the Qin colonization strategy discussed earlier in this chapter.

[129] That these two services constituted the main content of statute labor is clear from the "Statute on labor services" (*yao lü* 徭律), the Qin versions of which were excavated at Shuihudi and acquired as part of the Yuelu Academy collection, and the early Western Han version excavated at Zhangjiashan. See *Shuihudi*, 47-48, slips 115-124; Hulsewé, *Remnants*, 63-66; *Ernian lüling yu Zouyanshu*, 245-250, slips 407-417; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 896-912; *Yuelu shuyuan cang Qin jian*, vol. 4, 116-120, slips 147-159.

[130] According to the early Western Han statutes, the sons of commoners and rank holders up to the 7th level of rank who were fifteen years of age or older could be mobilized for grain transportation, see *Ernian lüling yu Zouyanshu*, 248, slip 413; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 902-903. A similar rule applied under the Qin Empire, even though the Qin statute does not specify the ranks of people whose sons were subject to mobilization, see *Yuelu shuyuan cang Qin jian*, vol. 4, 120, slips 157-158. For the exemption of the holders of the 4th and higher ranks from the labor service, see *Yuelu shuyuan cang Qin jian*, vol. 4, 152, slip 253.

approval of mobilization quotas. Only then could the counties proceed with mobilizing subjects within their jurisdictions.

Local officials in charge of planning labor projects were held accountable for any mistakes in these estimates.[131] They were also required to keep track of the number of days conscripted individuals were employed every year, since each mobilization could last for a different duration of time and could involve just a part of the available labor force, so individual one-month labor quotas could be split up between a number of projects over the year. A deficiency in the days of service in a particular year had to be "transferred" to the next year, while the number of service days in access of the one-month quota was deducted from the next year's quota.[132]

The self-imposed limitation of the state's access to its subjects' labor was, beyond doubt (see below), primarily dictated by the concern that excessive mobilizations result in disruption of the agricultural economy and, consequently, to social unrest. As long as the authorities were prudent enough not to indulge in excessive mobilizations, shortage of labor force for state projects was looming at the horizon. Careful budgeting was part of the solution. Legal provisions were made to exclude from the annual labor services the works that benefited a limited number of locals, as opposed to those satisfying broader state needs. Such works did not count towards the annual labor quota and had to be completed by households concerned, while the local government

[131] For detailed regulations of this process, see *Shuihudi*, 47, slips 122-124; Hulsewé, *Remnants*, 64 (for pre-imperial Qin) and *Yuelu shuyuan cang Qin jian*, vol. 4, 119-120, slips 156-159 (for the Qin Empire).

[132] For the Qin regulations, see *Yuelu shuyuan cang Qin jian*, vol. 4, 152, slips 253-254. For the similar rules under the early Western Han, see *Ernian lüling yu Zouyanshu*, 248, slip 415; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 902-903.

contributed necessary organizational expertise.[133] Repeated repairs made necessary by the poor quality of the original work also did not count towards the annual labor quota.[134]

Although in the Warring States Qin labor conscripts could be called for service outside their home area, particularly at the capital region where much construction was taking place, long-distance transfers of labor force were becoming less feasible as the state territory expanded.[135] One of the key purposes for which labor was mobilized, the transportation of materials (including grain tax) illustrates the problem. A year after the proclamation of the Qin Empire, the governor of Dongting Commandery instructed his subordinates to reduce their recourse to labor mobilizations for transportation purposes:[136]

> 廿七年二月丙子朔庚寅，洞庭守禮謂縣嗇夫、卒史嘉、叚（假）卒史谷、屬尉：令曰：“傳送委輸，必先悉行城旦舂、隸臣妾、居貲贖責（債）。急事不可留，乃興徭。”今洞庭兵輸內史及巴、南郡、蒼梧，輸甲兵當傳者多。節（即）傳之，必先行乘城卒、隸臣妾、城旦舂、鬼薪白粲、居貲贖責（債）、司寇、隱官、踐更縣者。田時毆，不欲興黔首。
>
> In the twenty-seventh year [of King Zheng, i.e. the First Emperor], in the second month, *bing-zi* being the first day of the month, on the day *geng-yin* (March 30, 220 BCE). Governor Li of Dongting [Commandery] addressed the senior officials of [subordinate] counties, adjunct scribe Jia, temporary adjunct scribe Gu and the subordinate commandant: “The ordinance stipulates: “When [the goods] are to be transported, first

[133] *Yuelu shuyuan cang Qin jian*, vol. 4, 118, slips 151-153.

[134] *Shuihudi*, 47, slips 116-121; Hulsewé, *Remnants*, 63.

[135] For labor services performed outside the home counties of mobilized conscripts during the Warring States period, and for subsequent localization of labor services, see Zhang Jinguang, *Qin zhi yanjiu*, 226-227.

[136] *Liye Qin jiandu*, vol. 2, 447-452, tablet 9-2283.

use "wall-builders and grain-pounders,"[137] bond-servants,[138] and those working off their fines, redemption fees, and debts. Only for urgent matters should conscripts be levied." Now Dongting is shipping military supplies to the Authority of the capital region as well as to the [commanderies] of Ba, Nan and Cangwu,[139] and those who are to be engaged in transporting armor and weapons are many. For the purpose of this transportation, first mobilize the soldiers who guard [city] walls, bond-servants, "wall-builders and grain pounders", "collectors of firewood for the shrines and grain-huskers,"[140] those working off their fines, redemption fees, and debts, "robber-guards,"[141] "those hidden in the offices"[142] and those performing their shifts [of duty] at

[137] Being sentenced to a "wall-builder" (*chengdan* 城旦) for men or "grain-pounder" (*chong* 舂) for women was the harshest form of labor punishment in the Qin and Han law that often involved mutilation by tattooing (*qing* 黥). See Tomiya Itaru 冨谷至, *Qin Han xingfa zhidu yanjiu* 秦漢刑罰制度研究 [*A study of the penal regime under the Qin and Han Dynasties*] (Guilin: Guangxi shifan daxue, 2006), 28-31; Han Shufeng 韓樹峰, "Qin Han tuxing jiegou" 秦漢徒刑結構 [The structure of penal labor under the Qin and Han], in Han Shufeng, *Han Wei falü yu shehui: yi jiandu, wenshu wei zhongxin de kaocha* 漢魏法律與社會：以簡牘、文書為中心的考察 [*Law and society under Han and Wei empires: A research focused on the official documents on bamboo and wooden tablets*] (Beijing: Shehui kexue wenxian, 2011), 49-76.

[138] Bond-servants (*lichen* 隸臣 for men, *qie* 妾 for women) was another category of penal labor but could also indicate state-owned slaves. In the majority of known Qin documents, the term refers to convicts. See Li Li 李力, *"Lichenqie" shenfen zaiyanjiu* "隸臣妾"身份再研究 [*The "lichenqie" status revisited*] (Beijing: Zhongguo fazhi, 2007), 681-682. Bond-servants performed labor tasks along with 'wall-builders' and other convicts but could also be assigned supervisory tasks or employed as runners. See Korolkov, "Convict Labor in the Qin Empire: A Preliminary Study of the "Register of Convict Laborers" from Liye," in Fudan daxue lishixue xi 復旦大學歷史學系 and Fudan daxue chutu wenxian yu guwenzi yanjiu zhongxin 復旦大學出土文獻與古文字研究中心, eds., *Jianbo wenxian yu gudaishi: di er jie chutu wenxian qingnian xuezhe guoji luntan lunwenji* 簡帛文獻與古代史：第二屆出土文獻青年學者國際論壇論文集 [*Manuscripts on bamboo and silk and ancient history: Proceedings of the second young scholars international conference on excavated manuscripts*] (Shanghai: Zhongxi, 2015), 149-152.

[139] Ba 巴 Commandery was located in the eastern part of the Sichuan Basin and in the Three Gorges area, roughly coextensive with the modern Chongqing Municipality. Nan 南 Commandery was situated around the confluence of the Yangzi and Han Rivers in the modern Hubei Province. See *Zhongguo lishi dituji*, vol. 2: *Qin, Xi Han, Dong Han shiqi* 秦、西漢、東漢時期 [*Qin, Western Han and Eastern Han periods*], 11-12. Unknown prior to the discovery of Zhangjiashan legal documents, Cangwu 蒼梧 Commandery occupied the southern part of modern Hunan Province and the north-west part of Guangxi Province. See Hou Xiaorong 后曉榮, *Qindai zhengqu dili* 秦代政區地理 [*Administrative geography of the Qin period*] (Beijing: Shehui kexue wenxian, 2009), 429-435.

[140] "Collectors of firewood and grain-huskers" (*guixin baican* 鬼薪白粲) was a category of convict laborer whose punishment was somewhat lighter than that of "wall builders and grain-pounders". See Han Shufeng, "Qin Han tuxing jiegou," 51-56; Barbieri-Low, *Artisans in Early Imperial China*, 227-228.

[141] "Robber guards" (*sikou* 司寇) was a relatively light labor punishment that involved supervision of other convicts as suggested by its name. See Tomiya, *Qin Han xingfa zhidu yanjiu*, 31; and Chapter 3 of this dissertation.

[142] "Those hidden in the offices" (*yinguan* 隱官) were former convicts subject to mutilating punishment or tattooing who were released after official amnesties or due to other circumstances. Their bodily "incompleteness" meant they could not be rehabilitated to their commoner status and remained legally, socially and economically inferior for the rest of their lives. See Jiang Feifei 蔣非非, "*Shiji* zhong "yinguan tuxing" yingwei "yinguan, tuxing" ji "yingong" yuanyi bian" 《史記》中"隱官徒刑"應為"隱官、徒刑"及"隱宮"原義辨 [The phrase "yinguan tuxing" in the *Shiji* should be read as "yinguan" and "tuxing" – an interpretation of the original meaning of the compound

the county.[143] During the agricultural season, it is undesirable to levy the black-headed people (i.e., commoners)."

The governor is referring to long distance transportation between the commanderies in the Yangzi basin and from Dongting Commandery to the capital region, which could take considerably longer than one month, making labor conscripts unsuitable for the task. Indeed, the imperial ordinance and governor's instructions prescribe refraining from labor mobilization until all other available pools of labor are exhausted. The same requirement is reiterated in the Qin imperial statutes from the Yuelu Academy collection.[144] Mobilization during the agricultural season was of particular concern to the lawgiver.[145] While such mobilizations had to be avoided in the first place. In emergency situations it was allowed to levy the members of wealthy households, while the poorer ones could be employed during the slack season only.[146] Assessment of a household's

"yingong"], in Zhongguo wenwu yanjiusuo 中國文物研究所, ed., *Chutu wenxian yanjiu* 6 (Shanghai: Shanghai guji, 2004), 136-139. Both *sikou* and *yinguan* were treated as commoners for most purposes, even though their entitlement to state-allocated land was half the quota for commoners, and their legal status was above that of debtor laborers who were placed in the same group as criminals working off their fines and redemption fees.

[143] The meaning of *jiangeng* 踐更 was the subject of a lengthy debate deriving from the two conflicting interpretations by the *Hanshu* commentators Fu Qian 服虔 (2nd century C.E.) and Ru Chun 如淳 (3rd century C.E.). Fu believed that *jiangeng* were performing their turns of labor service in person, while the term for substitute laborers who received 300 cash per month for working in someone else's stead was *guogeng* 過更, see *Hanshu*, 35.1905. Ru commented that *jiangeng* were substitute laborers, see *Hanshu*, 7.230. Both arguments are supported by the evidence from other Han-era sources such as *Shiji*, *Yantie lun*, and the collection of court cases from the Zhangjiashan burial no. 247. See Ulrich Lau and Michael Lüdke, *Exemplarische Rechtsfälle vom Beginn der Han-Dynastie: Eine Kommentierte Übersetzung des* Zouyanshu *aus Zhangjiashan/Provinz Hubei* (Tokyo: Research Institute for Languages and Cultures of Asia and Africa (ILCAA), Tokyo University of Foreign Studies, 2012), 223-224, note 1092. More recently, it was argued on the basis of excavated texts that the term *geng* 更 ("service in shifts") did not refer to general labor obligations *yao* but rather to a distinct type of services (discussed further in this subsection). This conclusion is supported by the quoted document from Liye that draws a distinction between the two. See Yang Zhenhong, "Yao, shu wei Qin Han zhengzu jiben yiwu," 202-203.

[144] *Yuelu shuyuan cang Qin jian*, vol. 4, 117, slips 148-150.

[145] A Qin ordinance from the Yuelu Academy collection lists agricultural works that were not to be interrupted by labor mobilizations: plowing, seeding, weeding, and planting trees. See *Yuelu shuyuan cang Qin jian*, vol. 4, 216-217, slips 366-369.

[146] *Yuelu shuyuan cang Qin jian*, vol. 4, 149, slips 244-246.

wealth was necessary to estimate its capacity to resist external shocks such as state's demand for labor.[147] While the taxation of property does not appear to have played an important role in the Qin fiscal system, the development of bureaucratic tools to keep track of private individuals' property proved important in the later attempts to introduce systematic taxation of property during the mid-Western Han period.

With its emphasis on centralized control and decision-making, the institution of *yao* labor services was inadequate to meet local governments' need for manpower that could be used more flexibly than allowed under the terms of *yao* services. This need was partly satisfied by other forms of labor mobilization. One of these was "periodic services," or "services in shifts of duty" (*geng* 更). In the state of Qin, "shifts" were probably originally associated with military service, and people performing *geng* were referred to as "servicemen" (*zu* 卒). Some of the frontier guards (*shu* 戍) were serving in monthly shifts of duty.[148] Unsurprisingly, they were often deployed outside their home counties, and a large number of such servicemen is attested in the frontier county of Qianling.[149]

By the late Warring States and imperial Qin times, levies serving in monthly shifts were performing a variety of tasks within their home counties. A document excavated at Liye records

[147] For the early Western Han legal statute prescribing the priority mobilization of manpower and resources of wealthy households for transportation purposes, see *Ernian lüling yu Zouyanshu*, 248, slip 411; Barbieri-Low and Yates, *Law, State, and Society,* 902-903. For the link between property census and labor mobilization, see Shi Yang 石洋, "Qin Han caichan diaocha zhidu chutan" 秦漢財產調查研究初探 [A preliminary study of the property census regime under Qin and Han], *Hanxue yanjiu* 漢學研究 33.1 (2015): 1-32; Guo Hao 郭浩, *Handai difang caizheng yanjiu* 漢代地方財政研究 [*A study of local finances during the Han Dynasty*] (Jinan: Shandong daxue, 2011), 154-155. For a detailed examination of the household property lists from the Qianling County archive, see Chapter 5 of the present study.

[148] "Statute on frontier servicemen" (*shu lü* 戍律) from the Yuelu Academy collection: "Frontier servicemen are serving monthly shifts/rotating on monthly basis" 戍者月更. See *Yuelu shuyuan cang Qin jian*, vol. 4, 129, slip 184.

[149] See, for example, *Liye Qin jiandu*, vol. 1, 83-83, tablet 8-143; 89-91, tablet 8-149+8-489; 237, tablet 8-850.

an individual from the Town District (*du xiang* 都鄉) of Qianling County who was serving his one-month-long shift of duty (*jian yue geng* 踐月更) as a ferryman at the Qiling District in the same county.[150] The above-quoted circular of the Dongting Commandery governor is also referring to "those serving their shifts at the county" (*jian geng xian zhe* 踐更縣者), whose labor had to be used up before the general mobilization was called for.

Many junior administrative functionaries and assistant staff were serving in monthly shifts of duty, as were employees at state-managed husbandry farms and artisanal workshops.[151] The institution of periodic services extended to convicts, some of whom were allowed to live with their families and to work their shifts of labor, even though they could at any moment be called for service as need arose.[152] As long as periodic services were performed in their home areas, conscripts could be supplied by their families, to the effect of externalizing government's expenses on the maintenance of labor force and administrative personnel.[153]

"Services in shifts of duty" provided local authorities with an inexpensive pool of labor that did not need to be maintained on a permanent basis. While most of those working their shifts

[150] *Liye Qin jiandu*, vol. 1, 191-192, tablet 8-651. This person might also have been a ferryman in his regular life (Robin D.S. Yates, personal communication).

[151] For the duties of community (village and ward) functionaries such as chiefs (*dian* 典), elders (*lao* 老), and gatekeepers of wards (*limenzhe* 里門者) performed as periodic service by eligible community members, see *Yuelu shuyuan cang Qin jian*, vol. 4, 116, slips 145-146; 192-193, slips 295-296. For junior functionaries (scribes 史, diviners 卜, invocators 祝) at local administrations serving shifts of duty in the early years of Western Han Empire, see "Statutes on scribes" (*shi lü* 史律) from Zhangjiashan (*Ernian lüling yu Zouyanshu*, 295-305, slips 474-487; Barbieri-Low and Yates, *Law, State, and Society,* 1084-1111). It may be assumed that this practice goes back to Qin. For corral keepers (*zao* 皂) at state-managed livestock farms serving shifts of duty, see *Shuihudi*, 22-23, slips 13-14; Hulsewé, *Remnants*, 26-27. For periodic services in artisanal workshops (*gongshi* 工室), see *Yuelu shuyuan cang Qin jian*, vol. 4, 204, slip 329.

[152] For convicts working as artisans, see *Shuihudi*, 45-46, slip 109; Hulsewé, *Remnants*, 61-62.

[153] See, for example, *Yuelu shuyuan cang Qin jian*, vol. 4, 155, slips 263-264; 204, slip 329.

probably stayed within their home counties, many of them could be assigned tasks that required travelling far from their homes, making them unavailable for local use. Rotation of frontier servicemen in one-month shifts was probably a residue of the mid-Warring States situation when the Qin territory was sufficiently circumscribed to make such short-term shifts practicable. With the expansion of imperial frontiers, the institution of one-year-long frontier service eventually prevailed, and "services in shifts of duty" came to be exclusively limited to conscripts' home regions.[154]

Evidence that we have for the Qin labor institutions reflects a somewhat paradoxical situation. The functioning of the local administrative apparatus heavily depended on labor levies since much of this apparatus consisted of quasi-bureaucrats serving on a part-time basis at a minimal or no cost to the state. Labor mobilizations were onerous. In contrast to the later period, more than one monthly labor shift had to be performed per year, and some individuals had to work for the government one month every three months.[155] To make things worse, they could be additionally asked to perform *yao* services amounting to another month every year. At the same time, local authorities were never guaranteed sufficient manpower. Their laborers, servicemen, and even their officials could at any moment be mobilized for external needs and temporarily removed from their jurisdiction.[156] To make the situation more complicated, maintaining a large

[154] A group of population registers of Nan Commandery excavated from tomb no. 1 at Songbai 松柏 (Jingzhou Municipality, Hubei Province) and dated from the 130-s BCE includes a register of servicemen performing their shifts of duty. While doing so, all of them appear to have been staying within Nan Commandery, and vast majority were not even leaving their home counties. See Chen Wei, "Jiandu ziliao suojian Xi Han qianqi de "zugeng" 簡牘資料所見西漢前期的"卒更" ["Servicemen working in shifts of duty" in the early Western Han period as reflected in documents on bamboo and wood], *Zhongguo shi yanjiu* 3 (2010): 23-35. Chen argues that the number on the register is the total annual number of servicemen in Nan Commandery, suggesting none of them were dispatched to serve outside this administrative unit.

[155] Chen Wei, "Jiandu ziliao," 30.

[156] For a legal regulation on mobilization of local officials for labor services, see *Yuelu shuyuan cang Qin jian*, vol. 4, 152-153, slips 254-256. For a legal case record mentioning one of the judiciary clerks performing *yao* service while

reserve of labor beyond the immediate need potentially created pressure on the material resources of local governments. Controlling the cost of the labor force by matching supply to demand and balancing local against central needs for labor were central to the Qin system of unfree labor discussed in Chapter 4.

Household taxation and the fu 賦 *taxes*

Built on the binary foundation of labor-cum-military levies and in-kind land taxation, the Warring States Qin developed a number of additional levies called *fu* 賦. Later historians often identified these with the capitation tax of the Han Empire, the *suanfu* 算賦, that was levied on the adult population and collected in coin. However, the official annals of the Han founding emperor Gao (202–195 BCE) seem to suggest that this tax was initially (*chu* 初) introduced in 203 BCE.[157] No mention of the capitation tax has so far been found in the excavated Qin documents or in the transmitted records about the Qin.

A legal case from the Yuelu Academy collection sheds some light on the origins of *fu*. The term is used to indicate communal contributions toward extraordinary expenditure such as funerary expenses for the destitute.[158] The official *fu* taxes may have been an extension of the communal practice to the state finance as they were levied in emergency situations, in particular, to meet war

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the case was investigated and arriving just in time to overturn the sentence, see *Ernian lüling yu Zouyanshu*, 374-377, slips 180-196; Barbieri-Low and Yates, *Law, State, and Society,* 1376-1393. A list of Qianling County officials (*Qianling li zhi* 遷陵吏志) illustrates a severe shortage of personnel when only 51 of 103 officials on the government roster were actually available while 35 others were performing labor services (*yao shi* 徭使), probably outside of the county. See *Liye Qin jiandu*, vol. 2, 167-168, tablet 9-633.

[157] *Hanshu*, 1A.46.

[158] *Yuelu shuyuan cang Qin jian*, vol. 3, ed. Zhu Hanmin and Chen Songchang (Shanghai: Shanghai cishu, 2013), 153-165, slips 108-136, esp. 155, slip 114. For the English translation of this case, see Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 188-210, esp. 197-98.

spending.[159] By the late Warring States period, however, some *fu* were collected on a regular basis. The *fu* were probably also the first levies to undergo at least part monetization.

One of the most important *fu* taxes mentioned in contemporary documents was the household tax, *hufu* 戶賦.[160] The early Western Han "Statute on fields" makes clear that the *hufu* was collected every year in two installments, the first time in the fifth month in the amount of 16 cash, and then in the tenth month as one *shi* (ca. 20 liters) of hay. This levy may have originated as an extension of the land tax in hay and straw that had to be paid by the households not engaged in agricultural production. This would also explain why the article provides for the commutation of in-kind tax to cash payments after "the county's needs (for the in-kind product, i.e. hay) are satisfied." The recently published Qin "Statute on finance" (*jinbu lü* 金布律) from the Yuelu Academy collection contains an article parallel to that of the Western Han statute, but there are also some important differences between the two regulations that make it worthwhile to quote them alongside each other:[161]

(Qin statute)
· 金布律曰：出戶賦者，自泰庶長以下，十月戶出芻一石十五斤；五月戶出十六錢，其欲出布者，許之。十月戶賦，以十二月朔日入之，五月戶賦，以六月望日入之，歲輸泰守。十月戶賦不入芻而入錢者，入十六錢。吏先為印斂，毋令典、老挾戶賦錢。

The "Statutes on finance" state: [When] household tax is paid, for those holding [a rank] lower than *taishuzhang* (18th), in the tenth month the household is to pay out one *shi* and

[159] *Shiji*, 5.204, comment by Qiao Zhou 譙周 (201–270 CE) quoted in the Tang-era *Suoyin* 索隱 Commentary to the *Shiji*. On the relationship between the origins of *fu* and military spending, see Ma Yi 馬怡, "Handai de zhufu yu junfei" 漢代的諸賦與軍費 [*Fu* levies and military spending during the Han era], *Zhongguo shi yanjiu* 3 (2001): 27-37.

[160] *Shuihudi*, 132, slip 165; Hulsewé, *Remnants*, 177.

[161] *Yuelu shuyuan cang Qin jian*, vol. 4, 107, slips 118-120; *Ernian lüling yu Zouyanshu*, 193, slip 255. Translation of the Western Han article follows Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 700-701, with some changes.

fifteen *jin* of hay (ca. 33.5kg); in the fifth month, the household is to pay out sixteen cash. It they are willing to pay it in [bolts of] cloth, this is to be permitted.[162] The household tax due in the tenth month is entered on the first day of the twelfth month. The household tax due in the fifth month is entered in the middle of the sixth month. It should be forwarded to the Commandery Governor. If in the tenth month the household tax is entered not in hay but in cash, sixteen cash is to be entered.
Officials should first seal the collected [money] with their seals and not let the Village (Ward) Chief or Elder handle the money [collected as] household levy.[163]

(Early Western Han statute)
卿以下，五月戶出賦十六錢，十月戶出芻一石，足其縣用，餘以入頃芻律入錢。

For one holding [a rank] lower than Ministerial [rank] (10th to 18th ranks), in the fifth month the household is to pay out sixteen cash as [household] tax, and in the tenth month, the household is to pay out one *shi* of hay, until the county's needs are satisfied. As for the surplus (i.e. after the county has satisfied its needs), [the county] is to take in cash according to [the exchange rate for the] hay [tax collected from] *qing* [of agricultural land].[164]

Another early Western Han legal article that deals with the household levy belongs to the "Statutes on finance". It apparently addresses only the monetary part of the levy:[165]

租、質、戶賦、園池入錢，縣道官勿敢擅用，三月壹上見金、錢數二千石官，二千石官上丞相、御史。

As for the cash that has been inserted from [market and excise] taxes, authorization fees, *household taxes*, and [income from] orchards and ponds, the offices of the county or

[162] Cloth was performing a number of monetary functions being used in state payments, revenue collection, and presumably also in private transactions in the early Chinese empires. According to the Qin statutes from Shuihudi, one piece of cloth used as currency had to be ca. 1.85m long and 57cm wide and was equivalent to eleven cash, see *Shuihudi*, 36, slips 66, 67; Hulsewé, *Remnants*, 52-53.

[163] The last sentence is separated from the rest of the text with a large space. This may suggest it was not a part of the original statute and may have been copied in from elsewhere.

[164] According to another article of the Zhangjiashan "Statutes on agriculture", one *shi* of hay was valued at fifteen cash, see *Ernian lüling yu Zouyanshu*, 187, slip 241; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 696-697.

[165] *Ernian lüling yu Zouyanshu*, 254, slips 429-430; translation follows Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 924-925, with minor changes. Italicization is mine.

march must not dare to use it without authorization. Once every three months report the amount of gold and number of cash coins on hand to [the respective] 2,000-bushel official (viz., the Commandery Governor), and the 2,000-bushel official is to forward this to the Chief Minister and the Chief Prosecutor.

The following table draws comparison between the two statutes.

Table 2.1: Household tax in the Qin and Han statutes

	Qin statute	**Early Western Han statutes**
Amount of tax	16 cash 1 *shi* 15 *jin* (ca. 33.5kg) of hay	16 cash 1 *shi* (ca. 29.76kg) of hay
Commutation	Cash to cloth Hay to cash, 1 *shi* = 16 coins[166]	Hay to cash, 1 *shi* = 15 coins
Taxable households	Below the 18th rank	Below the 10th rank
Remittance	Cash remitted to commandery authorities	Hay retained by the local authorities Cash income reported to commandery authorities and to the central government

Documents from the Qianling county archive provide evidence for the collection of household tax by the local authorities in the Qin Empire. One fragment records the amount of 300+

[166] The text of the Qin statute seem to suggest that the amount of sixteen cash was due for the entire in-kind part of the household revenue, however an arithmetical manual probably excavated from the same tomb as the statute collection quotes the official price of one *shi* of hay at sixteen cash, suggesting the price in the "Statute on finance" also refers to one *shi* rather than to one *shi* and fifteen *jin*. See *Yuelu shuyuan cang Qin jian*, vol. 2, 73, slip 73 (0973).

cash collected in the tenth month as a "hay [tax levied on] households" (*hu chu* 戶芻).[167] Another document reports the collection of 64 cash under the same taxation item, which, at the official price of sixteen coins per *shi* of hay would have been an amount collected from four households.[168]

The produce levied as the *hufu* was not limited to hay. Twenty-eight households in Qiling, one of the three districts of Qianling County, are recorded to have paid 10 *jin* 8 *liang* (ca. 2.6 kg) of silk worm cocoons as household levy.[169] Cocoons were also collected from sixty households in Erchun District, which probably represented its entire population.[170] This tax was probably levied in the fifth and sixth months, which is compatible with the Qin statutory requirement.[171] The Liye record may reflect a local taxation practice in a silk-producing area.[172]

The case of the household tax summarized in Table 2.1 suggests that the in-kind part of some *fu* taxes was retained by counties and probably used to replenish stockpiles. Conversely, the cash had to be remitted (lit. "transported", *shu* 輸) in full to the commandery authorities that, under the Qin, were primarily in charge of military spending such as manufacture of weapons and armor and levying troops.[173] By the second decade of the Western Han period, the law no longer

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[167] *Liye Qin jiandu*, vol. 1, 179, tablet 8-559.

[168] *Liye Qin jiandu*, vol. 1, 286, tablet 8-1165. For the discussion of these and other records of household taxation in the Liye documents, see Wu Wenling 鄔文玲, "Liye Qin jian suojian "hufu" ji xiangguan wenti suoyi" 里耶秦簡所見"戶賦"及相關問題瑣議 [A preliminary study of the questions related to the "household levy" in the Qin documents from Liye], *Jianbo* 8 (2013), 215-228.

[169] *Liye Qin jiandu*, vol. 1, 172, tablet 8-518.

[170] *Liye Qin jiandu*, vol. 2, 173, tablet 9-661.

[171] Wu Wenling, "Liye Qin jian suojian "hufu," 216-219.

[172] Barbieri-Low and Yates observe that the adjustments to the Qin practice of collecting hay and straw tax became necessary when the Qin "expanded beyond its northwestern homeland, encompassing territory that was not suitable for the production of this crop," see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 717, n. 83.

[173] For an analysis of evolution of the commandery's functions from the Warring States to the Qin imperial period, see You Yifei, "Cong junqu dao difang zhengfu - jiandu ji jinwen suojian Zhanguo Qin zhi junzhi yanbian" 從軍區

explicitly required that the money collected as *hufu* tax be remitted up the administrative hierarchy, even though the wording of the statute does not rule out such a possibility. Yet, insofar as the hay part of the tax was reserved for local use ("use at the county", *xian yong* 縣用), and county authorities were allowed to monetize some of this income, the "hay tax levied on households" could serve as a source of cash revenue for local governments. It is unclear whether or not the same applied in the Qin Empire.

Its residual nature (monetization was possible only after the state economy's needs for raw material were satisfied) suggests that under the baseline model local governments were not entitled to cash incomes from this tax. Monetization of local finances developed not so much through reallocation of revenue items from the center to local governments as through granting the local authorities some leeway in making decisions about collecting residual revenue in cash rather than in kind. While no such residues may have been available when the state economy was in its full sway providing material support for military campaigns, construction projects, and resettlement programs, any contraction in the need for raw materials paved the way for the local authorities to monetize surpluses.[174] This mechanism will become instrumental in the fate of the imperial fiscal regime after the collapse of the Qin Empire.

到地方政府－簡牘及金文所見戰國秦之郡制演變 [From military district to provincial government – the evolution of the Warring States Qin commandery system as reflected in documents on bamboo and wood and in bronze inscriptions], http://www.bsm.org.cn/show_article.php?id=2643, accessed March 17, 2017.

[174] It should be noticed that the stipulations on commutation of in-kind taxes to cash are absent in the Shuihudi legal texts that are generally believed to be a record of the Warring States Qin law. They appear in the statutes from the Yuelu Academy collection, which reflect the imperial Qin legislation, and become more abundant in the early Western Han statutes from Zhangjiashan. This suggests a general tendency toward monetization of local finances, which is in line with independently observed increasing engagement between the local governments and the markets (on which see Chapters 3). Still, one should be particularly cautious drawing such conclusions as neither of the known statute collections records the entire legislation of respective periods.

The household tax was not the only *fu* collected by the Qin authorities. Liye documents mention at least three other *fu*, the "regular tax" (*hengfu* 恒賦); the "righteous tax" (*yifu* 義賦) presumably paid by non-*huaxia* ("barbarian") individuals officially referred as "those who have returned to the righteousness" (*gui yi* 歸義, that is, recognized the authority of the emperor); and the "feather tax" (*yufu* 羽賦), in addition to a number of isolated uses of the graph *fu* ("levy").[175] Insofar as only one of these levies is singled out as "permanent" (*heng* 恒), others may have been collected on a more random basis, rendering some substance to the later condemnations of the Qin emperors who allegedly claimed as much as two-thirds of their subjects' income in various *fu* at the peak of Qin's military spending and extravaganza of monumental construction.[176]

Some of these *fu* levies were probably not raised from the general populace but rather represented tribute payments by the administrative units. For example, the Qianling records suggest that feathers for the payment of "feather tax" were collected by convicts organized by the district (*xiang*) officials.[177] When convicts failed to collect sufficient volume of feathers, officials had to purchase feathers from private individuals to fill the tribute quota.[178] The same refers to

[175] For the *hengfu*, see *Liye Qin jiandu*, vol. 1, 147-148, tablet 8-433. For the *yifu*, see *Liye Qin jiandu*, vol. 1, 290, tablet 8-1199. This may or may not be the same tax that was paid by tribesmen in the Nan Commandery in the beginning of Western Han period for exemption of labor service obligations, see *Ernian lüling yu Zouyanshu*, 332, slips 2-3; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1174-1175. For the *yufu*, see *Liye Qin jiandu*, vol. 1, 384, tablet 8-1735. The You 酉 River basin where Qianling County was located was an important producer of bird feathers used to manufacture arrows, see, for example, *Liye Qin jiandu*, vol. 1, 82-83, tablet 8-142; 84-89, tablet 8-145; 196-197, tablet 8-663. For the use of feathers in arrow production, see *Liye Qin jiandu*, vol. 1, 332, tablet 8-1457+8-1458. For other records of the *fu* levy in Liye documents, see, for example, *Liye Qin jiandu*, vol. 1, 63, tablet 8-104; 441, tablet 8-2179; 478, tablet 8-2544 (in this later case, the word may be used in its verbal function, "to pay [tribute], to provide [services]"). For the importance of feather resources in Qianling County, see, for example, Wang Zijin, "Liye Qin jian "bu yu" de xiaofei zhuti" 里耶秦簡 "捕羽" 的消費主題 [Consumption of "collected feathers" in the Qin documents from Liye], *Hunan daxue xuebao (shehui kexue ban)* 4 (2016): 27-31.

[176] *Shiji*, 118.3090.

[177] *Liye Qin jiandu*, vol. 2, 369, tablet 8-673+8-2002+9-1848+9-1897.

[178] *Liye Qin jiandu*, vol. 2, 239, tablet 9-992.

some other *fu* levies mentioned in the Qianling archive, such as the annual tribute (*sui fu* 歲賦) in local birds.[179] These payments, therefore, were not taxes but rather the redistributed produce of the state economy that is considered in more detail later in this chapter.

Commercial taxes and taxes on mercantile wealth

Along with the monetized part of the household tax, taxes on commercial transactions were the major sources of cash income for the Qin treasury. The Qin law required that trade be conducted at the official markets (*shi* 市) by the traders enrolled in mutual surveillance groups.[180] They were assigned market stalls, and one document mentions a specialized division in the county government in charge of such assignments, the Bureau of the Market (*shi cao* 市曹).[181] Some categories of merchandize such as ceramics could be traded at home, but traders were required to self-report to the officials for taxation purposes. Finally, itinerant trading was allowed for the a period of less than ten days. For longer periods, traders were required to register at the official markets or face the risk of fines and confiscation of merchandize and earnings.[182]

Legal statutes and administrative documents from the Qin and early Western Han periods mention two monetary taxes levied on those engaged in commercial activity: the *zu* 租 tax, often identified with the *shi zu* 市租 ("market tax") mentioned in the *Shiji* and the *shisi zu* 市肆租

[179] *Liye Qin jiandu*, vol. 2, 43-45, tablet 9-31.

[180] *Shuihudi*, 36-37, slip 68; Hulsewé, *Remnants*, 53. For the spatial organization and administration of the official markets in the Qin and Han empires, see Barbieri-Low, *Artisans in Early Imperial China*, 118-131.

[181] *Yuelu shuyuan cang Qin jian*, vol. 3, 129-130, slips 64-65; Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 152-153.

[182] *Yuelu shuyuan cang Qin jian*, vol. 4, 109, slips 124-126 (1289, 1288, 1233).

("market-stall tax") of the *Hanshu*[183], and the *zhi* 質 levy.[184] The Qin "Statutes on finance" (*jinbu lü*) from the Yuelu Academy collection also mention "other minor incomes in coin" (*ta shao ru qian* 它稍入錢) that may or may not have been commercial taxes proper.[185]

The meaning of the terms *zu* and *zhi* has been the subject of considerable debate. While some scholars argued that the "market tax" (*shi zu*) was an annual rent for a market stall rather than a truly commercial tax based on the value of merchandise,[186] the opposite opinion gained currency with the excavation of Qin and Han legal documents.[187] The early Western Han "Statutes on passes and markets" (*guan shi lü* 關市律) stipulates punishment for market traders failing to "self-report their *zu*" (*zhan zu* 占租).[188] Self-reporting (*zi zhan* 自占) is a procedure well-attested in the Warring States and early imperial texts that required people to report their liability for taxes,

[183] *Shiji*, 52.2008; *Hanshu*, 24A.1127. See Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 726-727.

[184] A fragmentary document from the Qianling archive lists the market tax 市租 and the *zhi* alongside each other, suggesting that in the Qin this was a common reference to levies on commercial activity. See *Liye Qin jiandu*, vol. 2, 427, tablet 9-2162.

[185] *Yuelu shuyuan cang Qin jian*, vol. 4, 108, slips 121-123; *Ernian lüling yu Zouyanshu*, 254, slip 429; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 924-925. The list of reports (*ji lu* 計錄) prepared by the Qianling county Bureau of Households (*hu cao* 戶曹) includes the "report on *zu* and *zhi* [levies]" (*zu zhi ji* 租質計), which could have been a general term for commercial taxes, see *Liye Qin jiandu*, vol. 1, 167, tablet 8-488.

[186] Katō Shigeru 加藤繁, "Kandai ni okeru kokka zaisei to teishitsu zaisei to no kubetsu" 漢代に於ける国家財政と帝室財政との区別 [The difference between the state finance and imperial household finance during the Han era], in *Shina keizaishi kōshō* 支那経済史考證 [*Studies in the economic history of China*] (Tokyo: Tōyō bunko, 1952-1953), 56-60; followed by Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 726-727, n. 16.

[187] For the interpretation of *shi zu* as a commercial tax based on the declared value of sold goods, see Hiranaka Reiji 平中零次, "Kandai no eigyō to "senzo" ni tsuite" 漢代の営業と「占租」について [On the commerce and "self-reporting for taxation purpose" during the Han period], *Ritsumeikan bungaku* 立命館文学 86 (1952): 18-34; Yamada, *Shin Kan zaisei shūnyū*, 408-409; Yang Zhenhong, "Qin Han shiqi de shi zu" 秦漢時期的市租 [Market tax during the Qin and Han periods], in *Chutu jiandu yu Qin Han shehui (xubian)*, 273-288.

[188] *Ernian lüling yu Zouyanshu*, 196, slip 260; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 722-723.

labor mobilizations, and emergency requisitions.[189] Such reporting was needed to provide authorities with information they would otherwise find difficult to collect, such as the value of property, volume of commercial transactions, and age of their subjects. Since market stalls were assigned to individual traders by the county authorities themselves, there was no need for additional self-reporting. On the other hand, there was no easy way for officials to estimate the value of sales, even though some attempts were made to facilitate control.[190]

Zhi is sometimes understood as pledges deposited with the government for loaned tools, animals, vehicles etc.[191] However it is unclear how these pledges could be repaid to lenders on return of loaned items, as statutes emphasized that *zhi* and market taxes had to be deposited in cash jars 缶 that could not be easily opened.[192] Chen Wei 陳偉 suggested an alternative interpretation

[189] The earliest evidence for the self-reporting procedure is provided by the military chapters of *Mozi* 墨子 conventionally attributed to the Warring States period where it refers to the emergency requisitioning of food in the city under siege. Each household was required to report the amount of remaining grain at the risk of the death penalty. See Cen Zhongmian 岑仲勉, ed., *Mozi chengshou ge pianjian zhu* 墨子城守各篇簡注 [*Military chapters of Mozi with annotations*] (Beijing: Zhonghua, 2011), 126. In the Qin Empire, subjects were required to self-report to local officials on reaching eighteen years of age for the purpose of labor service assessment, see *Yuelu shuyuan cang Qin jian*, vol. 4, 42, slip 011 (2037). A legal case from the Yuelu Academy collection also suggests that market trader households had to report the value of their property for taxation, see *Yuelu shuyuan cang Qin jian*, vol. 3, 153-165, slips 108-136; Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 188-210. In the Han Empire under Emperor Wu, all merchants were required to report the value of their property, and owners of the means of transportation had to report carts and boats in their possession, all of which were subject to taxation. See *Hanshu*, 24B.1166-1167.

[190] The Qin law demanded that price tags be attached to merchandize worth more than one coin, see *Shuihudi*, 37, slip 69; Hulsewé, *Remnants*, 53; *Yuelu shuyuan cang Qin jian*, vol. 4, 106, slip 117.

[191] Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 937-938, n. 59.

[192] For deposition of *zhi*, *zu* and some other incoming cash payments in cash jars, see *Shuihudi*, 42-43, slip 97; Hulsewé, *Remnants*, 56-57; *Yuelu shuyuan cang Qin jian*, vol. 4, 108, slips 121-123; *Ernian lüling yu Zouyanshu*, 254, slip 429; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 924-925. Hulsewé translates *xiang* as "money-box," while Barbieri-Low and Yates opt for a more literary translation "[cash] jar". The Qin statute from the Yuelu Academy collection requires that it should not be possible to extract cash once it was entered in the jar.

that *zhi* was a fee charged for official authorization of large-scale commercial transactions.[193] The Qin "Statute on finance" from the Yuelu Academy collection, published after Chen's article, supports this reading. It prescribes the payment of the *zhi* fee to officials issuing a travel document (*chuan* 傳) that allowed selling high-ticket movable property such as cattle, horses, and slaves across county borders. The amount of the fee was 22 coins, and it was to be deposited with the supervisor of the market post (*shi ting* 市亭).[194] A fragmentary document from Qianling archive indicates that the authorization fee was also payable on the sale of metals.[195]

Neither the Qin nor the Han statutes specify the composition of "other minor incomes in coin" that are mentioned in the Qin "Statutes on finance." Prior to the publication of the Qin statutes from the Yuelu Academy collection, it was argued that the term refers to the monetary component of household tax.[196] However, previous discussion of the household tax already revealed that the law treated it separately from "minor incomes."[197] In the Yuelu "Statutes on finance" the term figures within the reference to revenues levied on market transactions along with

[193] Chen Wei, "Guanyu Qin yu Han chu "ru qian xiang zhong" lü de jige wenti" 關於秦與漢初"入錢缿中"律的幾個問題 [On some problems related to the Qin and early Han legal article on "the money that has to be entered into the cash jar"], *Kaogu* 8 (2012): 69-79, esp. 72.

[194] *Yuelu shuyuan cang Qin jian*, vol. 4, 134, slips 199-201. A case record from the Zhangjiashan collection of submitted doubtful cases mentions a *zhi* fee paid to the supervisor of a market post for authorizing the sale of a cow, see *Ernian lüling yu Zouyanshu*, 359-363, slips 99-123; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1305-1331.

[195] The documents refers to the sale of iron (*tie* 鐵) and bronze (*tong* 銅), see *Liye Qin jiandu*, vol. 1, 447-448, tablet 8-2226+8-2227.

[196] Wu Wenling, "Liye Qin jian suojian "hufu," 224-227.

[197] Even before the publication of the Yuelu statutes, Chen Wei argued against identifying "minor incomes" with the monetary household tax, suggesting that the former referred to irregular incomes the amount of which fluctuated considerably from year to year, while the latter were part of predictable regular revenue. See Chen Wei, "Guanyu Qin yu Han chu "ru qian xiang zhong," 74-75.

the commercial tax *zu* and authorization fee *zhi*.[198] A poorly preserved document on a wooden tablet excavated at Liye records the payment to the County Treasury (*shaonei* 少內) of a "market rent" (*shi jia* 市假), which may have been one of the "minor incomes."[199]

Another isolated piece of evidence in the legal case from the Yuelu Academy collection deals, among other things, with an owner of a market stall who failed to declare the value of her property for taxation purposes (*zi shui* 貲稅).[200] Since this is the single mention of property tax in the entire body of known Qin and early Western Han texts, at present there can be no certainty with regard to its place in the fiscal structure. Finally, a recently published fragment from the Qianling archive mentions a "tax on the [production or sale of] ale" (*jiu zu* 酒租).[201] Unfortunately, nothing is known about this tax, which is otherwise not mentioned in transmitted or excavated texts. Neither can we be sure that it belonged to the "minor incomes in coin." It cannot be ruled out that the tax was charged in kind on the production and/or sale of alcoholic beverages.[202]

As in the previously discussed case of household taxation, local governments were not authorized to dispose of incomes from the majority of commercial taxes. The early Western Han law required that the monetary amounts collected as market taxes (*zu*) and authorization fees (*zhi*) be reported to the central government along with the incomes from the household tax and revenues from imperial parks (for which see the next section). Local authorities were emphatically

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[198] *Yuelu shuyuan cang Qin jian*, vol. 4, 108, slip 121.

[199] *Liye Qin jiandu*, vol. 1, 389, tablet 8-1771.

[200] *Yuelu shuyuan cang Qin jian*, vol. 3, 153-165; Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 188-210.

[201] *Liye Qin jiandu*, vol. 2, 327-328, tablet 9-1555.

[202] The Qin law regulated the sale of alcohol, in particular, prohibited such sales at the field huts (*tian she* 田舍) where farmers resided during agricultural works. See *Shuihudi*, 22, slip 12; Hulsewé, *Remnants*, 25.

prohibited from using these funds without authorization.[203] While it is unclear whether or not similar regulations existed in Qin law, transmitted sources consistently identify the revenues from "mountains, rivers, [imperial] parks and ponds, and market taxes" as incomes assigned to the Emperor's Privy Purse (*shao fu*).[204] The central government's office of Privy Purse was part of the Qin bureaucratic establishment inherited by the Han Empire.[205] Given the lack of evidence for any change in the structure of its incomes at the beginning of Western Han, it may be assumed that commercial taxes were assigned for the central government's rather than local use.[206]

This does not refer to "other minor incomes in coin" that are not mentioned in the article restricting local use of monetary revenues. Qin and Han administrative records suggest that "minor incomes" (*shaoru* 稍入) were used to pay local expenses. A Qin document from Liye states that "minor incomes" were insufficient to cover the expenses incurred by the Qianling County authorities in 211 BCE.[207] Quoting the shortage in "minor incomes" as a cause for the local government's inability to fulfill its obligations also occurs in documents excavated from the fortifications on the north-western frontier of the Han Empire.[208] By the mid-Western Han period,

[203] *Ernian lüling yu Zouyanshu*, 254, slips 429-430; translation follows Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 924-925.

[204] *Shiji*, 30.1418; *Hanshu*, 24A.1127. See also Nancy Lee Swann, *Food and Money in Ancient China: The Earliest Economic History of China to AD 25, Han Shu 24 with Related Texts, Han Shu 91 and Shih-chi 129* (Princeton: Princeton University Press, 1950), 150-151.

[205] *Hanshu*, 19A.731-732.

[206] For this opinion, see also Chen Wei, "Guanyu Qin yu Han chu "ru qian xiang zhong," 75-76; Yang Zhenhong, "Qin Han shiqi de shi zu," 278-279.

[207] *Liye Qin jiandu*, vol. 1, 146-147, tablet 8-427. Only the top part of the tablet is preserved. The text refers to laborers (*tu* 徒) that could not be provisioned from the locally available "minor incomes" 稍入不能自給.

[208] Gansu sheng wenwu kaogu yanjiusuo 甘肅省文物考古研究所 et al., eds., *Juyan xinjian* 居延新簡 [*New documents on wooden slips from Juyan*] (Beijing: Wenwu, 1990), 510, E.P.F. 22-487; 511, E.P.F. 22-522.

"minor incomes" were an important part of local finances, and they were probably becoming such already in the Qin Empire.[209]

The need for cash income was exacerbated by the increasing demand for monetary liquidity on the part of local authorities. The Qin "Statutes on currency" from Shuihudi mentions "baskets" (*ben* 畚) for storing the county cash supplies for various unspecified disbursements.[210] An ordinance from the Yuelu Academy collection indicates that county authorities were in charge of making monetary awards to entitled individuals. The text emphasizes that counties were not allowed to use "forbidden cash" (*jin qian* 禁錢) until the local stocks of coin were exhausted, and then only with the permission of the central authorities.[211] "Forbidden cash" probably refers to monetary taxes earmarked for the imperial court or central government spending but stored in county treasuries.[212] Also, by the late Warring States and the Qin imperial period, much of local governments' procurement was processed through markets, which further increased their need for cash (for a more detailed discussion, see Chapter 6).

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[209] Wu Wenling, "Liye Qin jian suojian "hufu," 226-227.

[210] *Shuihudi*, 35-36, slips 64-65; Hulsewé, *Remnants*, 52.

[211] *Yuelu shuyuan cang Qin jian*, vol. 4, 197-198, slips 308-311.

[212] From the middle of the Western Han period on, the term "forbidden cash" (*jin qian* 禁錢) referred to the funds reserved for the use of the emperor, his household, and his court and managed by the Privy Purse, or Lesser Treasury. See, for example, Ying Shao's 應劭 (140–206 CE) commentary to *Hanshu*, 19A.732, comm. 1; *Hanshu*, 64B.2834; *Hou Hanshu*, 26.3600. However, the Qin ordinance from the Yuelu Academy collection clearly states that the permission to use the "forbidden cash" had to be obtained from the office of the Imperial Secretary (*yushi* 御史) and not from the Lesser Treaury. Moreover, the ordinance was part of a group of ordinances titled "The common ordinances for the officials with the salary grade of 2,000 bushels of the [office of the] Secretary of the Interior (here likely refers to the central government's "Ministry of Finance," *zhisu neishi* 治粟內史, lit. "the Grain-Managing Secretary of the Interior") and commanderies" 內史郡二千石官共令, which was concerned with state finance in general. For other ordinances in this group, see *Yuelu shuyuan cang Qin jian*, vol. 4, 196, slips 305-307. This suggests that in the Qin Empire, the term "forbidden cash" may have referred to the money reserved for the use by the central government and possibly also by the commandery authorities, not necessarily only by the Lesser Treasury.

Collection of commercial taxes involved the already familiar control procedures with the use of *quan* tallies. According to the "Statutes on finance" from the Yuelu Academy collection, a taxpayer had to personally make sure that the money was entered into the jar and then received one of three identical receipts. The market official in charge of collecting tax retained another one, while the third one was submitted to the county court at the end of the month along with the jar.[213] Following the already familiar pattern, the Qin legislators made an effort to make taxpayers monitor the behavior of tax-collecting officials.

Incomes from the state economy

It is difficult to define the vast state sector of the Qin economy and to draw a dividing line between the state (sometimes anachronistically referred to as "public") and the private sectors and between the state and domain economies. In term of fiscal policy, the state sector was subject to direct management by the officials, and the government disposed of all its produce and incomes, while it could only claim part of the private sector's produce through taxation. In practice, however, the two intertwined so much as to render such a distinction problematic. Various aspects of this interaction will be explored in greater detail in the following chapters, while here I only intend to outline the structure of the state economy.[214]

[213] *Yuelu shuyuan cang Qin jian*, vol. 4, 108, slips 122-123.

[214] Although its various aspects were separately addressed in numerous publications, very few attempts have been made toward systematic study of the state economy of Qin. To my knowledge, the only such published study in English is Hulsewé, "The Influence of the 'Legalist' Government of Qin on the Economy as Reflected in the Texts Discovered in Yunmeng County," in *Foundations and Limits of State Power in China*, ed. S.R. Schram (Hong Kong: Chinese University Press, 1987), 211-235. These articles were published before the discovery of the Liye documents that shed more light on the actual operation of the state-managed systems of production and distribution. For some preliminary notes, see Robin D.S. Yates, "Bureaucratic Organization of the Qin County of Qianling 遷陵 in the Light of the Newly Published *Liye Qin jian (yi)* and *Liye Qin jiandu jiaoshi (diyi juan)*," paper presented at the Fourth International Conference on Sinology, Academia Sinica, Taipei, Taiwan, June 20-22, 2012.

The issues related to the Qin domain economy – land, craft workshops and other assets controlled by the ruler's household – have already been briefly addressed in this chapter. For most of the Warring States period, there is no evidence for the domain economy as something distinct from the state economy. Even after the specialized office (sometimes called ministry) of Privy Purse (or Lesser Treasury, *shao fu* 少府) had been established toward the end of the period, there is little to suggest that its funds were exclusively used to cover the imperial household's expenditure as opposed to state spending.[215] Conversely, labor resources of the state economy were routinely deployed in what we would now characterize as household projects, e.g., construction of palace and tombs for the emperor and imperial clansmen and the maintenance of imperial parks. In the following discussion, therefore, the domain economy is amalgamated with the state economy as economic assets directly controlled and managed by the government officials, the incomes from which were available for disposal by centralized institutions.

For its functioning, the state economy relied on the vast pools of unfree labor. Part of this demand could be satisfied through the mechanisms of labor mobilizations. Professional artisans were routinely conscripted for work at government-managed workshops as part of their routine

[215] While very little is known about the organization of the Qin office of the Lesser Treasury, examples from the Western Han period may be illustrative. The introduction to the *Hanshu* "Table of officials and dignitaries" (*bai guan gong qing biao* 百官公卿表), which remains the most detailed outline of the central government organization in the Western Han and, by extension, the Qin Empire, mentions many subordinate offices that changed their organizational affiliation between the Privy Purse to the imperial Ministry of Finance (*zhisu neishi* 治粟內史 under the Qin and at the beginning of Han, subsequently renamed to *danongling* 大農令 and then *dasinong* 大司農), the paramount central government office in charge of managing the state economy, as well as between the Privy Purse and other offices of the empire's central government. Consider the example of the *sihu* 寺互 office, which was most likely in charge of weapons or armor manufacturing. It was initially (that is, likely, under the Qin or at the beginning of Western Han) subordinate to the Privy Purse but was eventually subordinated to the central government's office of the Commander of the Middle (*zhong wei* 中尉) charged with the security of the capital region. See *Hanshu*, 19A.732-733. While such change in subordination most likely pursued the goal of coordinating munitions production under the officer responsible for defence of the capital, it also seems likely that the *sihu* workshops were supplying imperial troops even when they were still part of the Privy Purse establishment. The same probably refers to numerous other workshops under the Privy Purse, which contributed to the armament and maintenance of the empire's troops, the costs that, in principle, had to be paid from the state coffers rather than those of the imperial household. Such examples can be further multiplied.

service obligations. The most skilled of them were separately identified as eligible for labor and tax exemptions for their household members. Such artisans probably had to spend a considerable part of their time working for the government and may have been state-employed on a permanent basis.[216] However, as has already been noticed, the Qin rulers and lawgivers were painfully aware of the fact that the state was in no position to randomly call for the subjects' labor. Special pools of dependent labor had to be created to make possible uninterrupted functioning of the state economy. Penal labor was arguably the most frequently applied sentence in the Qin criminal justice. It provided the state with the necessary labor force that, at least in theory, could be employed around the year for unlimited duration. An additional and important pool of labor was created through the mechanism of state lending to private individuals who were allowed to work off their loans.[217]

Convicts were employed for a variety of tasks, including those that could also be carried out by labor levies. In fact, convicts were singled out as the labor pool of first resort to be employed by the local authorities before they called for the general populace's services. There were also

[216] There were special "Statutes on artisans" (*gong lü* 工律) in the Qin law that set up production norms for state-employed artisans, see *Shuihudi*, 43-45, slips 98-107; Hulsewé, *Remnants*, 57-60. For the early Western Han regulations on tax and labor exemptions for artisans' households, see *Ernian lüling yu Zouyanshu*, 246, slips 278-280; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 758-759. It remains unclear whether or not such artisans were permanently attached to government workshops, as supposed by Barbieri-Low and Yates, or if they were annually conscripted for a fixed period of time. For discussion, see Barbieri-Low, *Artisans in Early Imperial China*, 223-224, and Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 755-756.

[217] The literature on penal labor in the Qin and Han empires is vast, and many of its key aspects are still under debate, such as the length of convict labor terms and even identification of certain categories of dependent laborers as convicts rather than government slaves. For a recent systematic discussion of penal labor in early Chinese empires, see Miyake, "Laoyixing tixi de jiegou yu bianqian" 勞役刑體系的結構與變遷 [Structure and evolution of the system of penal labor], in *Zhongguo gudai xingzhi shi yanjiu* 中國古代刑制史研究 [*Studies in the penal system in ancient China*], transl. Yang Zhenhong et al. (Guilin: Guangxi shifan daxue, 2016), 60-158. The most extensive English-language discussion of penal labor in the Qin and Han empires remains Barbieri-Low, *Artisans in Early Imperial China*, 227-245. For the debtor labor, see Maxim Korolkov, "Between Command and Market: Credit, Labor and Accounting in the Qin Empire (221-207 B.C.E.)," in Elisa Sabattini and Christian Schwermann, eds., *Between Command and Market: Economic Thought and Practice in Early China* (Leiden and Boston: Brill, forthcoming), and Chapter 3 of this work.

specific areas of the state economy that fully depended on convict labor for their functioning, most noticeably, agriculture. The Qin state operated agricultural farms managed by a special department of county government, the Office of Fields (*tian guan* 田官, also called the Division of Fields, *tian bu* 田部) under the Supervisor of Fields (*tian sefu* 田嗇夫).[218] The office employed convicts and had to submit regular accounts on their work.[219] The central government required local authorities to employ convicts in their custody for agricultural tasks. Counties were allowed to apply for reinforcements should the local supply of convict labor prove inadequate. Among other tasks, convicts were clearing land for agricultural use. The land was then distributed to farming households.[220]

[218] The Supervisor of Fields is already mentioned in the Qin statutes from Shuihudi, see *Shuihudi*, 22, slips 12-14; Hulsewé, *Remnants*, 25-27. Editors of the Shuihudi documents described his functions in broad terms as "a local official in charge of agricultural matters" (*Shuihudi*, 22, n. 2 to slip 12). According to the Shuihudi and Yuelu Academy statutes, the Supervisor of Fields was in charge of the upkeep of public order outside of settlements and for the wellbeing of government-owned oxen used in agriculture. For the articles of the Yuelu Academy "Statutes on fields" parallel to the Shuihudi text, see *Yuelu shuyuan cang Qin jian*, vol. 4, 106, slip 115; 161, slip 280. According to the early Western Han statutes from Zhangjiashan, the Supervisor of Fields, along with the district officials, was also responsible for keeping track of the land tenure and recording changes in registers, see *Ernian lüling yu Zouyanshu*, 220, slip 322; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 796-797. However, it was not before the publication of the first volume of the Liye documents that the true scope of the office's involvement in the management of agricultural production became clear.

[219] The two departments of county government charged with supervision of county's convict labor force, the Office of Granaries (*cang* 倉) and the Office of Controller of Works (*sikong* 司空), were regularly assigning labor force for use by other offices and recording these assignments in special registers ("Registers of convict laborers," *zuo tu bu* 作徒簿), a number of which were excavated at Liye. Many of them record assignments (*fu* 付) of convicts to the Office of Fields, see *Liye Qin jiandu*, vol. 1, 84-89, tablet 8-145; 98-99, tablet 8-162; 150-151, tablet 8-444; 196-197, tablet 8-663. The Office of Fields had to submit annual accounts on its use of convicts, see *Liye Qin jiandu*, vol. 1, 31-32, tablet 8-16.

[220] Clearing up of new agricultural land with the help of convict labor force was considered one of the key missions of local government, and failure to perform could result in criminal responsibility. See *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759. The document is translated and discussed in Ma Tsang-wing, "Qin Management of Human Resource in Light of an Administrative Document from Liye, Hunan Province," paper presented at the Creel Lecture Conference, University of Chicago, November 7, 2015.

The Office of Fields also operated granaries. The documents do not specify the origin of their stocks of grain, but it may be assumed that this was the produce of the state farms.[221] These granaries issued grain to the convicts who were tilling the state farms[222] and provisioned local officials and state personnel travelling across the countryside on official missions.[223] While we do not know the precise location of the state farms and grain stocks operated by the Office of Fields in Qianling County, these were probably deployed along the key communication routes to allow minimization of transportation costs.

Another branch of the county government, the Office of Husbandry (*chu guan* 畜官), was in charge of animal farms. The operation of these farms, which existed not only at the county but also at the district level,[224] also relied on convict labor.[225] Documents from the Qin tomb at

[221] For issuing of grain by the Office of Fields, see *Liye Qin jiandu*, vol. 1, 219-220, tablet 8-764; 226, tablet 8-781+8-1102; 311, tablet 8-1328; 362, tablet 8-1566; 363-364, tablet 8-1574+8-1787; 450-451, tablet 8-2246; vol. 2, 154, tablet 9-552; 201, tablet 9-762; 202, tablet 9-763+9-775; 222-223, tablet 9-901+9-902+9-960+9-1575.

[222] This is clearly the case of a document on tablet 8-1566 that records the numbers of convicts of various labor pools and age groups who were receiving their grain rations from the Office of Fields during the sixth month of 30th year of First Emperor's reign (217 BCE), see *Liye Qin jiandu*, vol. 1, 362, tablet 8-1566.

[223] A number of excavated travel certificates (*chuan* 傳) issued to travelling officials and accompanying personnel specify that they were expected to feed themselves from the Office of Fields while moving through the territory of their counties of service. See *Liye Qin jiandu*, vol. 1, 1-7, tablet 5-1; 40-41, tablet 8-50; 102-103, tablet 8-169+8-233+8-407+8-416+8-1185; 344-345, tablet 8-1517. The Office of Fields submitted "registers of those feeding themselves from the Office of Fields" (*tian guan zi shi bu* 田官自食簿籍) to county authorities, who, in their turn, had to convey this information to the Commandery Governor, see *Liye Qin jiandu*, vol. 1, 199, tablet 8-672. Provisioning of travelling officials is discussed in more detail in the Chapter 5.

[224] See *Liye Qin jiandu*, vol. 1, 474, tablet 8-2491 for a fragment of such report (*zhi* 志) submitted by the Town District 都鄉, one of the three districts of the Qianling County.

[225] *Liye Qin jiandu*, vol. 1, 128, tablet 8-285; vol. 2, tablet 8-199+8-688+8-1017+9-1895 (for the Office of Husbandry accounting for its use of convict labor force); vol. 1, 372, tablet 8-1641 (for the assignment of convicts for the work at the Office of Husbandry). Qin and Han statutes mention laborers-*tu* 徒 who were in charge for feeding and grazing government-owned cattle, see *Shuihudi*, 24, slips 18-20; Hulsewé, *Remnants*, 28; *Ernian lüling yu Zouyanshu*, 192-193, slips 253-254; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 700-701. While the term *tu* can be understood both generally to mean all personnel working for the government and specifically as convict laborers (Hulsewé, *Remnants*, 29-30, n. 21; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 487-488, n. 84), the latter interpretation is preferable in light of the Liye documents.

Longgang indicate that in the Qin Empire "forbidden parks" (*jin yuan* 禁苑) provided grazing ground for "horses, cattle, and sheep and goats belonging to the county offices" (*xian guan ma niu yang* 縣官馬牛羊).[226] This, again, points at the intertwining of state and imperial household economies. Most scholars believe the Longgang legal fragments to be related to the management of "forbidden parks," insofar as the tomb owner served in one of such parks during his lifetime.[227] In principle, incomes from the "forbidden parks" (which, apart from timber, wetland and other natural resources, included tracts of agricultural land) were reserved for the use by the imperial court and household, yet, as the Longgang fragments suggest, these parks were also available as a resource for the state economy in general.[228]

"Forbidden parks" were part of the larger system of facilities deployed across the empire yet subordinate directly to the central government rather than to the local authorities. These facilities and their managing personnel were called "metropolitan offices" (*du guan* 都官) and included miscellaneous assets such as iron foundries (*tie guan* 鐵官, lit. "office of iron"), horse stables (ma guan 馬官, lit. "office of horses"), and various artisanal workshops (*gong guan* 工官, lit. "office of artisans"; *zhi guan* 織官, lit. "office of weavers"). Although "metropolitan offices"

[226] *Longgang Qin jian*, 106, slip 100.

[227] See, for example, Hu Pingsheng 胡平生, "Yunmeng Longgang liuhao Qin mu muzhu kao" 雲夢龍崗六號秦墓墓主考 [An investigation into the identity of the occupant of the Qin tomb no. 6 at Longgang, Yunmeng], in *Longgang Qin jian*, 156-160.

[228] For the detailed study of the "forbidden parks" in the Qin Empire based on the Longgang documents, see Ma Biao 馬彪, *Shin teikoku no ryōdo keiei – Unmu Ryūkō Shin kan to Shikōtei no kin'en* 秦帝国の領土経営―雲夢龍崗秦簡と始皇帝の禁苑 [*Territorial management in the Qin Empire: Qin documents from Longgang, Yunmeng, and the forbidden parks of the First Emperor*] (Kyoto: Kyoto daigaku gakujutsu shuppankai, 2013). The author believes that the incomes from these parks were reserved for the use by the imperial court and household as opposed to the state finance, see Ma Biao, *Shin teikoku no ryōdo keiei*, 313-314. The list of facilities and offices under the "ministry" of Privy Purse (Lesser Treasury) in the *Hanshu* "Table of officials and dignitaries" does not specifically refer to "forbidden parks" and uses a more generic term "mountains and seas, lakes and marshes" 山海池澤. It also lists one of the most important "forbidden parks" of the Western Han period, the Shanglin 上林 Park. See *Hanshu*, 19A.731.

depended on the counties and commanderies where they were located for labor force, food supplies, organization of sale of broken equipment, and for communication with their superiors, they were accountable directly to the central government, which also disposed of their resources and incomes.[229] Exclusion of some of the important productive assets from the purview of the local governments should have resulted in greater centralization of revenues and further reduced the economic resources of local authorities.[230]

Craft production that remained under their control was an important source of both materials and monetary incomes for the local governments. In these workshops, convict and debtor laborers worked side by side with conscripted professional artisans. To maximize the utility of convict labor, officials were required to single out convicts who were "clever and could be trained as artisans."[231] The Qianling "registers of convict laborers" (*zuo tu bu* 作徒簿) record convicts employed at market workshops (*shi gong* 市工),[232] producing shoes, bamboo chests, mattings,[233] bamboo baskets,[234] repairing carts and suits of armor,[235] and weaving textiles,[236] among other

[229] For the recent studies of the "metropolitan offices" system in the Qin Empire, see Tang Junfeng (Chun Fung Tong), "Qin Han de difang duguan yu difang xingzheng" 秦漢的地方都官與地方行政 [Local metropolitan offices and local administration in the Qin and Han], *Xin shixue* 新史學 3 (2014): 1-60; and Chapter 4, "Qin dai du guan zhidu yanjiu" 秦代都官制度研究 [A study of the "metropolitan office" system in the Qin Empire] in Chen Songchang, *Qin dai guanzhi kaolun*, 138-177.

[230] For some important workshops directly subordinate to the central government, which were most likely operated by a "metropolitan office," see *Yuelu shuyuan cang Qin jian*, vol. 4, 204, slips 329-331.

[231] *Shuihudi*, 46-47, slip 113; Hulsewé, *Remnants*, 62.

[232] *Liye Qin jiandu*, vol. 1, 196-197, tablet 8-663; vol. 2, 455-463, tablet 9-2289.

[233] *Liye Qin jiandu*, vol. 1, 84-89, tablet 8-145.

[234] *Liye Qin jiandu*, vol. 1, 121, tablet 8-244.

[235] *Liye Qin jiandu*, vol. 1, 203-204, tablet 8-686+8-973.

[236] *Liye Qin jiandu*, vol. 1, 272-273, tablet 8-1069+8-1434+8-1520.

tasks. Particularly valuable convict craftsmen and craftswomen were obliged to continue working for the government even after their release after the completion of their sentences. Any attempt to unauthorizedly leave workshops qualified as a crime of absconding[237] and was penalized on the basis of value forfeited by the state, estimated at 60 coins per day of abscondence.[238]

While part of artisanal produce was consumed by the court or distributed among the government officials, military servicemen, and dependent laborers, another part was earmarked for sale in the market.[239] How important these monetary incomes were for local governments is suggested by the document circulated by Dongting Commandery authorities and urging subordinate counties to make use of convicts in their custody in order to engage in production for sale (*wei zuo wu chan qian* 為作務產錢), proceeds of which could be used to cover the needs of various county offices (*zi gei* 自給). This instruction is quoted in a plea by the Office of Fields for the Qianling County court to provide convict laborers necessary to follow this prescription by the commandery governor.[240] The Office of Fields did not specialize in manufacturing, yet its officials also found it necessary to produce for markets in order to get access to much-needed cash.

Not only artisans but also other branches of the state economy were supposed to engage with the market by selling their products. One of the common tasks assigned to convicts, for example, was gathering firewood. In fact, this task gave name to one of the groups of convict laborers, "the gatherers of firewood for shrines" (*gui xin* 鬼薪). An imperial Qin ordinance

[237] *Yuelu shuyuan cang Qin jian*, vol. 4, 41, slips 7-9.

[238] *Yuelu shuyuan cang Qin jian*, vol. 5, 70, slip 92.

[239] *Shuihudi*, 42-43, slip 97; Hulsewé, *Remnants*, 56-57; *Ernian lüling yu Zouyanshu*, 254, slip 429; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 924-925.

[240] *Liye Qin jiandu*, vol. 2, 185-186, tablet 9-710.

encouraged county governments to sell this firewood along with reeds (*wei* 葦), most likely collected by convicts, to replenish the county reserves of cash (*ru qian xian guan* 入錢縣官).[241] County governments were required to annually assess their officials' achievements in marketing the produce of the state sector, and these assessments were important in decisions regarding officials' promotion or demotion.[242] Importantly, the law did not require reporting or transferring these cash incomes to either commandery or the central authorities, which suggests that the proceeds of such market transactions provided another source of cash for the local governments.

Finally, whatever cash incomes local authorities were able to make by hiring out convicts (*yong shi* 傭事) could be used locally. By juxtaposing these earnings to the otherwise unknown type of state revenue, *pang qian* 旁錢 (lit. "concomitant cash"), which the local authorities were not allowed to make use of and which might have belonged to the broader category of "forbidden cash" (*jin qian* 禁錢) reserved for the central government, the Qin lawgivers sought to clearly delineate the legitimate sources of cash income for local administrations.[243] It is important to observe such incomes were almost invariably associated with the market reorientation of the state economy.

[241] *Yuelu shuyuan cang Qin jian*, vol. 5, 198, slip 302.

[242] For the legal requirement to sell the produce of government-operated animal farms, see *Shuihudi*, 35, slip 63; Hulsewé, *Remnants*, 45. For the assessment of an official as "inferior" (*dian* 殿) on the basis of his performance in marketing the livestock reared at a state farm, see *Liye Qin jiandu*, vol. 1, 343-344, tablet 8-1516.

[243] *Yuelu shuyuan cang Qin jian*, vol. 5, 138, slips 210-211.

The Qin fiscal model: key features and distributional effects

The state of Qin approached the end of the Warring States period with a developed system of resource extraction in which the state exerted direct control over the labor force to maximize agricultural and artisan production through resettlement, distribution of land to farmer households, and mobilization of manpower. State control focused on the strategically important areas along the rivers and other transportation routes, near the administrative centers, and in the proximity of war theaters. Insofar as taxation was primarily conducted in kind, transportation costs were the major concern to the government that attempted to operate supply directly rather than outsourcing it to merchants. In institutional terms, this organization was probably an outgrowth of the economy that formed in the Qin heartland in the Wei River basin during the centuries preceding its outward expansion, with its tradition of centralized organization of large-scale labor projects. This heritage is also manifest in the functional ambivalence of government's financial agencies such as the Office of Fields that was at the same time a ministry of agriculture overseeing distribution of land and collection of land tax and a direct operator of state-owned agricultural farms worked by convicts and slaves.[244]

The main goal of taxation was to finance wars. In view of high transportation costs and the low level of monetization of its fiscal system, the Qin sought to create supply bases close to the loci of state consumption. Measuring the taxation base and assessing revenues were paramount for military budgeting. Intensive exploitation of advantageously located but circumscribed enclaves proved a more efficient strategy than less aggressive control of what may have been far larger taxation base in the eastern regions of the Zhou world. This strategy also had important ramifications for the relationships between the principal and agents within the fiscal system.

[244] This functional ambivalence of the Office of Fileds was first noticed in Yamada, *Shin Kan zaisei shūnyū*, 44-45.

The limited geographical scale of revenue transfers was not synonymous with a high degree of control over fiscal incomes by the local authorities.[245] As argued in this chapter, the Qin state intensely monitored its local functionaries. The state's "scribal capacity" was radically upgraded starting from the mid-fourth century BCE. Scores of specialized, hereditary scribes were trained in official schools specifically for the government's use.[246] This was conductive to a considerable reduction of costs of producing and circulating written documents instrumental in centralized supervision. Monitoring techniques included independent submission of accounts by offices involved in administrative transactions; archival storage of copies of documents to facilitate cross-checking; strict deadlines for submission of periodic accounts; and an elaborate system of penalties for functionaries failing to meet these requirements.[247] Moreover, the central government sought to use the heads of farmer communities and even common taxpayers as a check on the behavior of its agents. While the effectiveness of these measures is difficult to measure, the attempt to employ an independent body of controllers external and possibly hostile to the bureaucratic organization attests to the state's commitment to monitor local officials even at the cost of alienating them.

Far from being a privileged and exclusive social stratum, local functionaries largely consisted of temporarily mobilized personnel receiving in-kind subsistence rations for their

[245] As suggested by Lewis who draws no distinction between the Qin and Han fiscal regimes, see Lewis, "Early Imperial China," 282-307. For high transportation costs in the early Chinese empire compared to the Mediterranean world as a factor in less aggressive transferring of revenue in the Han than in the Roman Empire, see Scheidel, "State Revenue and Expenditure," 178-180. While having a sea to connect its far-flung territorial possessions was certainly an enormous logistical advantage for any premodern empire, the "spatial circumscription" (to use Lewis's term) of early Chinese empires appears to be overstated in light of the recently excavated itineraries and other documents attesting to long-distance riverine transportation of bulky cargo, including grain shipments between the Yangzi and Yellow River basins. Implications of this new evidence will be discussed in Chapter 5.

[246] For scribal schools in Qin, see *Shuihudi*, 63, slip 191.

[247] The most extensive surviving account of scribal training in early empires is provided by the "Statutes on scribes" (*shi lü* 史律) in the early Western Han collection of legal materials from Zhangjiashan, see *Ernian lüling yu Zouyanshu*, 295-305, slips 474-87, translated and annotated in Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1084-1111.

services.[248] In a society where social rank of merit, not official position served as the main marker of status and a claim to material wealth and legal privilege, official service was at best a form of social security providing minimal subsistence, at worst an onerous burden often imposed on people as penalty.[249] Limited incentivization of state's agents combined with monitoring pressure contributed to an environment where low-ranking local functionaries were potentially subversive toward the state.[250]

The central government's program of monitoring local expenditure to maximize the utility of its spatially circumscribed fiscal base encountered two structural challenges. First, the majority of income was provided by direct taxation (land tax, household and other *fu* taxes), labor mobilization, or dispersed state economy (agricultural farms, artisanal workshops), all of which were managed at the local level. Local authorities were best positioned to make use of these incomes by legal (retaining their official portion of fiscal income) or illegal means (concealing revenue). The specific configuration of the Qin fiscal regime (relatively small size of the state; circumscribed, intensively exploited fiscal base; strong incentive for the central authorities to maximize extraction to finance wars) facilitated monitoring of local agents and temporarily determined distribution of revenue in favor of the center (see Table 2.2), but this was hardly

[248] Ration receipts from Liye demonstrate that low-ranked functionaries received the same amounts of grain as convicts and conscripted laborers and soldiers, see Huang Haobo 黄浩波, "*Liye Qin jian (yi)* suojian linshi jilu" 《里耶秦簡（一）》所見稟食記錄 [Records of grain rations in *Liye Qin jian*, vol. 1], *Jianbo* 11 (2015): 117-139.

[249] The Qianling county archive contains long lists of fines for local officials, which were probably worked off rather than paid in cash. Imposition of such fines effectively served as an instrument of retaining functionaries at their place of service for extra periods of time. For a discussion, see Chapter 4 and Korolkov, "Between Command and Market". For a general discussion of the transition from the rank-based social hierarchy to the one based on the official position, see Yan Buke 閻步克, *Cong jue ben wei dao guan ben wei: Qin Han guanliao pinwei jiegou yanjiu* 從爵本位到官本位：秦漢官僚品位結構研究 [*From the rank-defined social status to office-defined social status: A study of the structure of bureaucratic status in the Qin and Han periods*] (Beijing: Sanlian, 2009).

[250] Eventually, low-ranked local officials, along with the remains of the old aristocracy of the states conquered by Qin, provided leadership for anti-Qin revolts in the wake of the First Emperor's death.

sustainable in the longer run, especially after the rapid and vast territorial expansion at the end of the Warring States era.

Table 2.2: Collection and distribution of fiscal revenues in the state of Qin

Tax	Medium of collection	Use of revenue	Distribution of revenue
Land tax	Grain	Military provisioning	Transfer to the loci of military consumption or grain storage
		Court provisioning	
		Provisioning of administrative personnel and laborers levied by local government	Local use, accountability to the central government
	Hay and straw, commutable to cash (in imperial period)	Provisioning of horses and cattle Matting and construction material	Local use
Labor services	Labor	Construction, transportation, policing, variety of	Use by the central government

			economic tasks at local level	Use by the local government on authorization
Household tax		Hay and straw, commutable to coin	Military finance Hay and straw: same as land tax in hay and straw Coin: market purchases, monetary rewards	Local use
		Coin, commutable to cloth		Remitted to the central government
Other *fu* taxes		Unclear, probably partly coin	Military finance	Remitted to the central government (?)
Commercial taxes	Market tax	Coin	Market purchases, monetary rewards	Remitted to the central government
	Authorization fees			
	"Minor incomes"			Local use
Incomes from the state economy		In-kind	Consumption by government personnel	Transfer to distant loci of consumption Local use

	Coin	Market purchases, monetary rewards	Local use

Second, the Qin conquest of the monetized economies to the east and south-east of Guanzhong and the growing monetization of the Qin economy itself increased the importance of monetary revenues. Local authorities, in particular, were now required to procure materials through markets instead of relying on centralized distribution. At the same time, almost all monetary revenues were claimed by the central authorities, leaving county governments with "minor incomes" that were so piecemeal that historians are still struggling to identify them with particular taxes; monetized residues of household, and, at least at some locales during the imperial period, the land tax in hay and straw; and whatever they were able to sell from the produce of the state economy under their management. It should be remembered that some of the most profitable enterprises such as coinage, production of iron tools, and exploitation of timber, wildlife and other natural resources in "forbidden parks" were operated directly by the central government.

What is common for all these incomes is their marginality with regard to the mainstream, in-kind extraction regime practiced by the Qin. Hay and straw levies could be commuted to cash only to the extent that the state's need for these materials – the need generated by livestock farms, transportation infrastructure, and storage facilities – was satisfied. Effectively, it was the contraction in these areas of state consumption that could potentially ameliorate local shortages of cash revenue. To put it differently, other things being equal, we would expect local governments in the Qin Empire to have been interested in the decline of some branches of the state economy and concomitant reduction of state consumption (which, during the Warring States period, was primarily of a military nature, including rewards and material bonuses for meritorious servicemen

and bounty-hunterers for capturing criminals) so that more in-kind revenues were available for monetization. Also, we would expect the local state economy, once left to its own means, to rebalance itself toward more market-oriented activities to meet local authorities' demand for monetary liquidity. After the Qin state economy collapsed together with the Qin Empire, distributional effects of its fiscal regime became an important factor in preventing the rulers of the subsequent Han Empire, which otherwise inherited the administrative and fiscal institutions of its predecessor, from rebuilding Qin's command economy. Chapter 4 will explore the mechanics of this change taking the institutions of forced labor as an example.

The final feature of the Qin fiscal model to be emphasized here is the very limited scope it provided for satisfying various groups of powerful local actors through the redistribution of tax revenues. This already became obvious in the case of the state's officials. Another vivid example is provided by the archaeologically attested expulsion of the Chu aristocratic lineages from the region surrounding their capital on the Middle Yangzi conquered by the Qin in 279–278 BCE. Antagonization of local elites is also exemplified by the resettlement of conquered states' "powerful and wealthy" (*hao fu* 豪富) after the completion of conquests in 221 BCE.[251] However, tight control over the tax base and the amount of revenue collected and spent, accompanied by the attempts to remove all private parties from benefiting in the process of resource extraction, meant that the spatial scope of the Qin fiscal model could not be easily scaled up without a revolution in communications technology. An alternative was the revision of institutions themselves, which was what the Qin imperial government actually attempted and which was accomplished by its Han successors.

[251] *Shiji*, 6.239.

3. Epilogue: Institutional challenges and solutions for the imperial state

Between 230 and 221 BCE, the Qin armies one by one annihilated all other "warring states" and formally unified the entirety of the Zhou world. This decade of conquest resulted in the incorporation of vast territories with monetized markets, powerful landholding and mercantile groups, and the land tenure systems different from that of the Qin.[252] Some adjustments to the Qin fiscal system were already being made prior to the "unification", but much fuller revision became necessary to make the new empire financially tenable.[253] The major problems the imperial government was dealing with were the rising transaction costs in the operation of taxation; circumscribed taxation base; the monetization of state expenditure and the growing role of markets that challenged the "physiocratic" model of revenue extraction and redistribution. Attempted solutions are better understood not as an encompassing reform package but as piecemeal responses to specific challenges.

Fostering the expansion of the agricultural taxation base on the newly conquered territories was among the top priorities for the imperial government. The time-honored colonization strategy was still applied, but it hardly presented a viable alternative to taxing local populations and existing landholdings. In 216 BCE, the government requested its subjects to self-declare landed possessions,

[252] It remains unclear whether private transactions in agricultural land were officially permitted in the Qin. No evidence for land sales, and in fact no record suggesting such sales were possible, have so far been discovered for Qin. Such sales, however, are attested for other Warring States polities, particularly those on the Great Plain, suggesting their land tenure regime differed from the Qin, even though they were certainly also familiar with centralized land distributions. For private acquisitions of agricultural land in the state of Zhao, see *Shiji*, 81.2447.

[253] For example, Yamada believes that a number of (still poorly understood) administrative reforms were implemented in the state of Qin around 227 BCE when it was already half-way to eliminating the other Warring States. He also convincingly argued that the expansion of the Qin state into the regions of rice agriculture was accompanied by the introduction of a new legal form, "ordinances on agriculture" (or fields, *tian ling* 田令), as opposed to the statutes on agriculture (or fields, *tian lü*) designed for Guanzhong with its crops of millet and wheat. These ordinances addressed specific environmental and social conditions of the newly conquered lands in the Yangzi basin. See Yamada, *Shin Kan zaisei shūnyū*, 46-52.

the measure that scholars consider a recognition of existing land tenures by the imperial government conditioned on the payment of taxes.[254] The state effectively acknowledged limitations of its claim to arbitrage in the distribution of arable land in return for increase in revenue. That many Qin subjects did indeed answer this call is attested by private petitions to the Qianling County government to record private landholdings in "permanent registers" (*heng ji* 恆籍).[255]

Recognition of local land tenures was also an important step toward reducing the operating costs in the land taxation. Analysis in this chapter suggested that the Warring States Qin model of agricultural resource extraction relied on intensive monitoring of the fiscal base and agent behavior, which was practical under the conditions of the limited territorial scale of the former. Monitoring of agents was necessitated by the relatively high extraction rate that increased risks of overtaxing as the result of principal-agent abuse, potentially leading to taxpayer resistance and erosion of the fiscal base. Unbalanced distribution of revenues that prioritized the needs of the central government over those of the local authorities increased the incentive for opportunistic behavior on the side of the latter and, respectively, the need for close monitoring on the side of the former.

Some monitoring mechanisms used by the Qin government have already been discussed above. To improve control efficiency, the Qin local administration was organized into parallel systems of offices (*guan* 官) and bureaus (*cao* 曹). The former was in charge of directly operating

[254] This measure is recorded not in the main text of the *Shiji* "Annals of the First Emperor" but in the early medieval commentary to this text by Xu Guang 徐廣 (352–425 CE), see *Shiji*, 6.251. While this is not the sole instance of a commentary providing important information absent in the main text, one may speculate that the recognition of local land tenure was a lengthy process rather than a one-time event, and that 216 BCE was marked by yet another official act of such recognition. Contemporary chroniclers may have considered it not sufficiently consequential to be included in the imperial annals. For the fiscal implications of recognition of existing land tenures, and its role in the dissolution of the institution of land distributions, see, for example, Yang Zhenhong, "*Ernian lüling* yu Qin Han "ming tian zhai zhi" 《二年律令》與秦漢"名田宅制" ["The statutes and ordinances of the second year" and the system for distributing agricultural fields and residential plots in the Qin and Han periods], in *Chutu jiandu yu Qin Han shehui*, 126-163.

[255] *Liye Qin jiandu*, vol. 2, 477-478, tablet 9-2344.

facilities such as agricultural farms, storehouses, granaries, and so on. The latter were part of the county court and were staffed with scribes working side by side with the county magistrate. Their main responsibility was to process and verify the written correspondence by the offices such as accounts (*ji* 計), evaluations (*ke* 課), etc. All relevant information passed through the bureaus, with copies stored in the county archive. The system was probably designed to intensify the monitoring of the state economy by maintaining independent accounts subject to cross-examination. That this organization faded away under the Western Han probably attests to its high operating costs.[256]

Increasing monetization of the Qin imperial economy presented market-based solutions for reducing the management and monitoring costs in the state economy. By the time when the Qin conquests were completed, the state storage agencies were actively participating in market transactions. An article of the statute "On the Controller of Works" required offices to purchase for cash the grease and glue they needed for their everyday functioning rather than waiting for these materials to be allocated by the central government.[257] Local government's agencies also purchased slaves,[258] horses,[259] feathers (presumably for the manufacture of arrows)[260] and clothes

[256] The operation of this administrative system only became clear after the publication of part of the Qianling county archive that allowed tracking communication of individual agencies. For a study of the relationship between bureaus and offices, see Tsuchiguchi Fuminori 土口史記, "Riye Shin kan ni miru Shin dai kenshita no kansei kōzō" 里耶秦簡にみる秦代県下の官制構造 [Sub-county administrative organization under the Qin Dynasty as reflected in the Liye Qin documents], *Tōyō shi kenkyū* 73.4 (2015): 1-38; Li Mingzhao 黎明釗 and Tang Junfeng 唐俊峰 (Chun Fung Tong), "Liye Qin jian suojian Qin dai xianguan, cao zuzhi de zhineng fenye yu xingzheng hudong – yi ji, ke wei zhongxin" 里耶秦簡所見秦代縣官、曹組織的職能分野與行政互動--以計、課為中心 [Functional differentiation and administrative interaction between the office and bureau organizations in the Qin counties as reflected by the Qin documents from Liye, with the focus on the account and evaluation documents], *Jianbo* 13 (2016), 131-158; and Sun Wenbo, "Bureaus and Offices in Qin County-Level Administration in Light of an Excerpt from the Lost *Hongfan wuxing zhuan (Great Plan Five Phases Commentary)*," *Bamboo and Silk* 1 (2018), 71-120.

[257] *Shuihudi*, 50, slips 128-129.

[258] *Liye Qin jiandu*, vol. 1, 93, tablet 8-154; 197, tablet 8-664+8-1053+8-2167; 367, tablet 8-1604.

[259] *Liye Qin jiandu*, vol. 2, 163, tablet 9-609.

[260] *Liye Qin jiandu*, vol. 1, 374, tablet 8-1662; 387, tablet 8-1755; vol. 2, 239, tablet 9-992.

for their personnel[261] while at the same time selling surplus commodities in their storage. A group of documents excavated at Liye records commercial deeds of the Qianling county granary, which was selling the leftovers from official sacrificial activities to private individuals.[262] Other texts routinely refer to the sales of grain, ale, salt and other comestibles from county supplies[263] as well as to other tradable commodities such as hides and horns of fallen livestock[264] and clothes produced at state-managed workshops.[265] These records indicate that the Qin state was eager to make profits while adjusting the volume of stored supplies to its actual needs.

An ordinance from the Yuelu Academy collection, which is dated to the imperial Qin period, sheds light on the changes taking place in military finance. The regulation deals with the purchases of food, drinks, clothing, and other supplies by the army officers:[266]

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[261] *Liye Qin jiandu*, vol. 1, 20, tablet 6-7; vol. 2, 185, tablet 9-709+9-873.

[262] For the transcription and discussion of documents, see Peng Hao, "Du Liye Qin jian "jiaoquan" buji" 讀里耶秦簡"校券"補記 [Notes on the "Control Tallies" among the Qin Documents from Liye], in *Liye gucheng, Qin jian yu Qin wenhua yanjiu: Zhongguo Liye gucheng, Qin jian yu Qin wenhua guoji xueshu yantaohui lunwenji* 里耶古城、秦簡與秦文化研究：中國里耶古城、秦簡與秦文化國際學術研討會論文集 [*Studies on The Ancient Town of Liye, Qin Documents and Qin Culture: Proceedings of the International Conference on China's Ancient Town of Liye, Qin Documents and Qin Culture*], ed. Zhongguo shehui kexueyuan kaogu yanjiusuo 中國社會科學院考古研究所, Zhongguo shehui kexueyuan lishi yanjiusuo 中國社會科學院歷史研究所 and Hunan sheng wenwu kaogu yanjiusuo (Beijing: Kexue, 2009), 196-200; Lü Yahu 呂亞虎, "Shilun Qin Han shiqi de ci Xiannong xinyang" 試論秦漢時期的祠先農信仰 [Preliminary Discussion of the Xiannong Cult during the Qin and Han Periods], *Jiangxi shifan daxue xuebao (zhexue shehui kexue ban)* 江西師範大學學報（哲學社會科學版） 46.5 (2013): 103-111; Charles Sanft, "Paleographic Evidence of Qin Religious Practice from Liye and Zhoujiatai," *Early China* 37 (2014): 327-358.

[263] See, for example, *Liye Qin jiandu*, vol. 1, 223, tablet 8-771; 246, tablet 8-907+8-923+8-1422; 286, tablet 1162; vol. 2, 57, tablet 9-56+9-1209+9-1245+9-1928+9-1973; 161, tablet 9-597; 267, tablet 9-1138.

[264] *Liye Qin jiandu*, vol. 1, 62, tablet 8-102; 168, tablet 8-490+8-501. For a legal regulation concerning the sale of sinews, hides and horns of fallen state-owned livestock, see *Shuihudi*, 24, slips 16-20.

[265] For the sale of convict's clothes to a private individual, see *Yuelu shuyuan cang Qin jian*, vol. 3, 185-195, slips 150-170; Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 228-246. In the Qianling County, female convicts were dispatched to sell clothes on behalf of the local government, see Liye Qin jiandu bowuguan 里耶秦簡牘博物館 et al., eds., *Liye Qin jiandu bowuguan cang Qin jian* 里耶秦簡牘博物館藏秦簡 [*Qin documents stored at the Liye museum of Qin documents*] (Shanghai: Zhongxi, 2016), 56, tablet 10-1170.

[266] *Yuelu shuyuan cang Qin jian*, vol. 5, 116-117, slips 146-148.

●令曰：吏從軍治粟將漕長輓者，自敦長以上到二千石吏，居軍治粟漕長輓所，得賣（買）所飲食衣服物及所以飲食居處及給事器兵，買此物而弗飲食衣服用給事者，皆爲私利。毋重車者，得買以給事，舍，毋過□□□人。

The ordinance states: When army officers in charge of grain [supplies] are commanding over supply transportation by water or by land (lit.: using two-wheeled carts), from corporal[267] and up to [the level of high-ranked] officials with the salary grade of 2,000 piculs who hold the position in the army in charge of grain provisioning by water or by land, they are allowed to purchase drinks, food, clothes, as well as kitchenware, domestic utensils, and implements and weapons they need to perform their duties. If they purchase these goods but do not use them as food and clothes or to perform their duties, this is considered private profit-making. If there are no heavy carts [for transportation], they are allowed to buy these to perform their duties. For the accommodation lodges, [the number of people] (staying there?) should not surpass… individuals.

The ordinance appears to be addressing the situation when the centralized system of army provisioning was failing, and the logistics officers had to procure food, clothing, transportation vehicles, and other supplies in private markets. It is unclear whether these were specially established "army markets" mentioned in the *Book of Lord Shang* or ordinary markets along the army's marching route. Detailed legal regulation suggests not only that this mode of military procurement had already become a common practice by the imperial Qin times but also that it fostered the merging of official function and commercial activity, the important development that will be addressed in more detail in Chapter 6.

Monetization of the state economy had important distributional consequences. My analysis suggests that incomes from the sale of extra stocks constituted an important source of monetary liquidity for the otherwise cash-thirsty local governments. While most of other monetary incomes

[267] I adopt the translation of the Qin military rank *dun (tun) zhang* 敦（屯）長 proposed by A.F.P. Hulsewé, *Remnants*, 108.

had to be remitted to the central authorities, a large part of monetized residual produce of the state economy was probably initially considered a "minor," or marginal income to be retained for local needs. This created a strong initiative for the local authorities to replenish their cash reserves by engaging in market transactions and prioritizing those sectors of state economy that were best suited to generate monetary incomes, such as the production of textiles and lacquerware. As an effect, the entire state economy gradually drifted away from its traditional role of subsistence provider for state-employed personnel and the labor force toward the market-driven role of profit maximizer.

This transformation, however, was by no means determined by the intrinsic development of the Qin economic institutions. The drift toward engagement with markets during the Qin imperial period was balanced by an equally pronounced surge in the scale of state-managed labor projects exemplified by the construction of long walls along the northern frontier, the highway network that connected the empire's capital to distant provinces, the First Emperor's mausoleum, and the Apang palace, to mention but the best-recorded projects. The surging state demand for labor and the need to distribute its labor force over large areas resulted in the inflation of unfree labor force of convicts, debtors, and long-term conscripts, many of whom were employed specifically to develop and guard frontiers (see Chapter 4). Labor remained the vital resource in the imperial enterprise, urging the government to vigorously search for ways to secure access to the sources of manpower beyond the seasonally and geographically circumscribed supply of farmer conscripts.

Labor management in the Qin Empire provides a convenient case for exploring the interplay between the command and market modalities of resource mobilization, and it will be the subject of one of the following chapters. Before that, however, we need to address in more detail

the organization and spatial distribution of the state presence on the southern frontier. The Qianling archive records the incorporation of the vast region to the south of Middle Yangzi into the Qin empire. This process involved the definition of territory, population, and resources through deployment of state agencies working to utilize these resources in the ongoing enterprise of empire building. It also capitalized on the long history of economic, social, political, and cultural integration in this region. Both stories will be explored in the next chapter.

Chapter 3 : Formation of the imperial frontier: from interaction zone to centralized administration

After a fifteen-year ceasefire, hostilities between the states of Qin and Chu resumed in 226 BCE. This time the Qin armies embarked on a conquest campaign aiming to eliminate the remaining rival polities in the Zhou world. By the time the Qin marched against the Chu, one of these states, Han, already had succumbed to the assault. After the initial success and some territorial gains, the first attack on Chu proved indecisive as the Qin troops were diverted to confront the state of Yan in the north.[1] The next year's campaign was a massive setback for the 200,000-strong Qin army as it was routed by the Chu.[2] The Qin responded with an unprecedented mobilization of some six hundred thousand troops under the veteran commander Wang Jian 王翦 who in 224 BCE inflicted a major defeat on Chu, occupied its lands to the north of the Huai River, including the capital Shouchun 壽春, and took the king of Chu prisoner.[3] Resistance continued until the next year when the remaining Chu force to the south of Huai was wiped out, and their leader committed suicide.[4]

While the Chu was crumbling at its core in the Huai basin, its spacious, often poorly demarcated possessions to the south of Yangzi fell in the hands of the victorious Qin.

[1] *Shiji*, 6.233; 40.1736.

[2] *Shiji*, 73.2339.

[3] *Shiji*, 73.2340. For the discussion of this campaign as an example of Qin's extraordinary military effort during the last decade of the Warring States period, see Miyake, "Qin guo zhanyi shi," 153-170.

[4] *Shiji*, 6.234; 40.1737; 73.2340-2341.

Unfortunately, these events passed virtually unrecorded in the transmitted sources preoccupied with the fate of the Chu capital, royalty, and military leadership. Even the names of the major administrative units established by the Qin in the wake of the conquest to control the vast territories to the south of Yangzi only became known with the recent discovery of legal manuscripts and administrative archives.[5] These documents suggest that the Qin advance to the south of Dongting 洞庭 Lake was rapid and unfolded simultaneously with the collapse of Chu power in the north. The two Qin commanderies key to the control of the region, Dongting 洞庭 and Cangwu 蒼梧, were both established in 222 BCE.[6]

The wording used in the Qin documents to record the year when a commandery was founded, *wei jun* 為郡 ("to create a commandery"),[7] conceals the fact that the Qin took over the already existing Chu administrative organization rather than developed it from scratch. Although there is little certainty about the course of events to the south of Yangzi in 223–222 BCE, lacking mentions of large-scale warfare may suggest that the Chu state in the south collapsed in the absence

[5] One of such units, Dongting Commandery, became known with the publication of the Qianling archival documents from Liye. Qianling was one of the counties within this commandery. Other commanderies to the south of Yangzi were known from transmitted sources such as the geographical treatise (*Dili zhi* 地理志) of the *Hanshu*. However their foundation is mistakenly attributed to much later times. For example, according to the *Hanshu* authors, Cangwu 蒼梧 Commandery was established in 111 BCE under the Han Emperor Wu (*Hanshu*, 28B.1629). Excavated documents demonstrate that Cangwu Commandery already existed under the Qin Empire, even though its location may have been different from the Han commandery of the same name. See Xu Shaohua 徐少華 and Li Haiyong 李海勇, "Cong chutu wenxian xi Chu Qin Dongting, Qianzhong, Cangwu zhu junxian de jianzhi yu diwang" 從出土文獻析楚秦洞庭、黔中、蒼梧諸郡縣的建置與地望 [Foundation and territory of the Chu and Qin commanderies of Dongting, Qianzhong, and Cangwu and their subordinate counties as reflected in excavated documents], *Kaogu* 11 (2005): 63-70, esp. 68.

[6] For the foundation date of Cangwu Commandery, see *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759. That Dongting Commandery was established in the same year is suggested by the fact that the earliest documents from Qianling County archive are dated from 222 BCE, see Yates, "The Qin Slips and Boards from Well No. 1," 291-329.

[7] *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759.

of much further effort by the Qin armies. As the Qin officials would soon realize, that did not mean that the region was fully pacified.[8]

This chapter focuses on the background and the immediate aftermath of the Qin conquest of what was then called Jiangnan 江南, the land to the south of Middle Yangzi roughly coinciding with the modern province of Hunan and part of Hubei Province to the south of the Yangzi.[9] This event signified an epoch-making turn in Chinese history. For the first time the power based in the Yellow River basin established direct administrative control over the lands to the south of Yangzi. Although the Qin presence in the Yangzi basin can be traced back to the conquest of the Chu capital and the foundation of Nan ("Southern") Commandery in 280–277 BCE or even to the conquest of Chengdu Plain in 316 BCE, the breakthrough to the south of the River in late 220's BCE followed by further southward campaigns a decade later once and forever turned the South into another center of gravity for the "Chinese" state. Over the next two millennia, the balance of demographic, economic, and political power between the Yellow and the Yangzi basins largely defined the polities of the imperial governments.

However, the Qin conquest of the South was not an arrival to a *terra incognita*. The first section of this chapter examines the interaction zone in the Middle Yangzi basin, which included large regions to the north as well as to the south of the river, from its formation in the Late Neolithic to the end of the end of the Warring States period. In Chinese archaeology, the concept of

[8] The precarious military situation in the Qianling County will be discussed in more detail later in this chapter. A legal case dated 220 BCE and included in the *Book of Submitted Doubtful Cases* (*Zouyan shu* 奏讞書) from the early Western Han burial no. 247 at Zhangjiashan narrates a major insurgency in the recently conquered Chu lands in what is now southeastern Hunan. Locally mobilized government forces were defeated by the rebels, and the commandery authorities characterized the situation as "extremely harmful and difficult". See *Ernian lüling yu Zouyanshu*, 363-370, slips 124-161; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1332-1358.

[9] For a geographic overview of Jiangnan in the Warring States and early imperial period, see Zhou Zhenhe 周振鶴, "Shi Jiangnan" 釋江南 [Interpreting "Jiangnan"], in Zhou Zhenhe, *Sui wuya zhi lü* 隨無涯之旅 [*Journey across the boundless*] (Beijing: Sanlian shudian, 2007), 324-334.

"interaction sphere" was advocated by K.C. Chang (Zhang Guangzhi 張光直, 1931–2001) to "characterize the dynamics of the regionalist process of cultural development" when "all regional cultures in time became more extensively distributed and interaction between them was intensified, resulting, during the fourth millennium BC, in a sphere of interaction that set the geographic stage for the first historical Chinese civilizations."[10] Geographic scale, historical dynamics, and the nature of interaction within the "sphere" have since been debated by scholars.[11] What appears to be clear, however, is that the "sphere" was composed of physiographic regions, within which economic and political interaction as well as convergence in social and cultural development were facilitated by logistical connectivity and, consequently, were much more pronounced than within the "sphere" as a whole.

I refer to such regions, of which the Middle Yangzi was one, as "interaction zones." Although the scale and intensity of cultural, economic, and political connectivity within the Middle Yangzi zone varied over the millennia following its initial formation in course of the mid-fourth to third millennium BCE, sometimes in conjunction with environmental changes, this connectivity never fully disappeared. Moreover, with the emergence of the states, it started to shape the process of territorial expansion: a power in control of one part of this physiographic region sought to expand its control to the rest of it. This dynamics probably guided the initial stages of the Qin expansion to the south of Yangzi.

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[10] See Kwang-Chih Chang, *The Archaeology of Ancient China*, 4th edition (New Haven: Yale University Press, 2006), 234; and Chang, "China on the Eve of the Historical Period," in *Cambridge History of Ancient China*, 37-73, esp. 54-59.

[11] For a recent analysis of the "Chinese interaction sphere" as a space of shared social memory, political ideology, and associated cultural practices, see Li Min, *Social Memory and State Formation in Early China* (Cambridge: Cambridge University Press, 2018).

The second section addresses the institutional aspects of the Qin "reconstruction" of the South. It considers the new evidence for administrative organization inherited by the Qin from its predecessor and analyzes the policies designed by the empire's rulers to control the "new territories" (*xin di* 新地), an official term applied in the Qin documents to denote the newly conquered lands. These amounted to a blueprint for imperial expansionism, administering the conquered lands, and distributing human and material resources among empire's regions.

The final section focuses on one extraordinarily well documented administrative unit to the south of Yangzi, Qianling County, whose archive was partially excavated at Liye. Located in the mountainous, sparsely populated area at the border of modern Hunan Province and Chongqing Municipality, this county would have qualified as a backwater if not for its strategic importance that encouraged heavy state investment in the maintenance of security and public order as well as economic management of this area. The surviving written documentation sheds light on the population numbers; ethnic composition and social organization of the local populace; agricultural, wildlife, and mineral resources; and the administrative organization deployed to manage this population and these resources.

1. The Mid-Yangzi interaction zone before the arrival of Qin

Human interaction and expansion of settlement leading to the formation of the Middle Yangzi interaction zone during the Late Neolithic (late fourth and third millennium BCE) were largely defined by the physiographic features of the region, especially by the dense, extensive web of navigable rivers and lakes. The Lianghu 兩湖 ("Two Lakes") Plain, nowadays divided between the two provinces, Hubei 湖北 ("To the north of [Dongting] Lake") and Hunan 湖南 ("To the south of [Dongting] Lake"), encompasses 60,000 km^2 of drainage basin along the middle reaches

of the Yangzi River, which divides this larger plain into two parts, the Jianghan 江漢 Plain to the north of the river and the Dongting 洞庭 Plain to the south. The Lianghu Plain emerged as the result of the filling in of the Paleo Lake Yunmeng with Yangzi sediments over the past ten thousand years.[12]

Yunmeng Lake to the north of the river and Dongting Lake to the south served as natural flood reservoirs for the Yangzi, absorbing seasonal floodwaters. By the first millennium BCE and probably earlier, Yunmeng Lake had already turned into a vast marsh with a circumference of approx. 900 km, which was no longer navigable.[13] Yunmeng owed its fame as a hunting ground to the enormous variety of terrestrial and aquatic wildlife, while canals were built between the Yangzi and Han rivers to circumnavigate the marshes (for further discussion, see Chapter 5).[14] On the contrary, Dongting Lake to the south of the river served as a navigation hub. Being part of the Yangzi riverbed, Dongting absorbed the flows of its four major southern tributaries, (from north-west to south-east) Li 澧, Yuan 沅, Zi 資, and Xiang 湘 rivers (see Map 3.1).[15] When the lake contracted during the dry season, all four rivers were discharging directly into the Yangzi.[16]

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[12] On the environmental history of mid-Yangzi wetlands, see Yuxin Zhu, Sumin Wang, and Ruijin Wu, "Sedimentologic Evidence for Date of Southward Moving of the Yangzi River in the Jianghan Plain since the Holocene," *Chinese Science Bulletin* 23.8 (1998): 659-662; Zou Yilin 鄒逸麟 and Zhang Xiugui 張修桂, eds. *Zhongguo lishi ziran dili* 中國歷史自然地理 [*Historic natural geography of China*] (Beijing: Kexue, 2013), 336-358; Brian Lander, "From Wetland to Farmland: The Human Colonization of the Central Yangzi Basin" (unpublished paper).

[13] In the literary tradition, it became known as the "vast marsh" (*guang ze* 廣澤), see, for example, *Shiji*, 117.3003-3004.

[14] For the transformation of Yunmeng Lake into marshes by the third millennium BCE, see, for example, Zhou Hongwei 周宏偉, "Yunmeng wenti de xin renshi" 雲夢問題的新認識 [A new data on the problem of Yunmeng Lake], *Lishi yanjiu* 2 (2012): 4-26.

[15] Source: Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Dongtingriversmap.png.

[16] See Tan Qixiang, "E-jun Qi jie mingwen shidi" 鄂君啟節銘文釋地 [Interpreting the place names in the text on the tally of Lord Qi of E], *Zhonghua wenshi luncong* 中華文史論叢 2 (1962): 169-190; *Zhongguo lishi ziran dili*, 344.

Regardless of the season, the four rivers were navigable and therefore served as convenient southward and south-westward routes. Conversely, they could also be used to transport materials and goods from the south to the urban centers that began to develop around Dongting Lake and to the north of Yangzi in the late fourth millennium BCE.

Map 3.1: The river systems of Hunan Province

The most important of these routes was the Xiang River in the eastern part of what is now Hunan Province. With the drainage area of 94,660 km^2, the Xiang River serves as a natural conduit between the Yangzi and the Pearl River systems. Along with the Dongting Plain, its valley is home to the vast majority of present-day Hunan's population. Known as "Eastern Hunan" (Xiangdong 湘東), the Xiang River basin is characterized by relatively level terrain and broad river valleys. Mountain ranges are relatively low, with average elevation 500–1,000 meters a.s.l.[17] Most of the plains that account for 13.1% of the province's area lie in its eastern part.

Other three river systems traverse the mountainous western half of Hunan Province, with their lower reaches crossing the alluvial Dongting Plain before emptying into the lake. Yuan River is the longest of the three (1,033 km). Its main channel provides access to Yunnan-Guizhou Plateau, while the upper reaches of its western tributaries such as Huayuan 華垣 and Jin 錦 Rivers are in the close proximity of the Wu 烏 River that joins Yangzi upstream of the Three Gorges some 90 km to the east of Chongqing City as the crow flies. The Yuan River system therefore provided inlets into the south-western highlands inhabited by the Ba 巴 (possibly ancestral to the modern Sino-Tibetan ethnic minority of Tujia 土家族) and Dian 滇 (possibly Tibeto-Burman speakers) peoples, but also opened Western Hunan (Xiangxi 湘西) to migrations and potential incursions from these regions. It was along these tributaries that the Qin was setting up military garrisons in the wake of its takeover of the Yuan River basin. By doing so, they continued the long tradition of military, economic, cultural, and administrative southward expansion from the Lianghu region.

[17] Zhu Xiang 朱翔, *Hunan dili* 湖南地理 [*Geography of Hunan*] (Beijing: Beijing shifan daxue, 2014), 22-23.

1.1. Building up the interaction zone in Late Neolithic and Early Bronze Age

By the late fourth and early third millennium BCE, improvements in agricultural and water control techniques, production tools, storage facilities, and transportation vehicles contributed to demographic growth. In the lower and middle reaches of Yangzi River, along the Huai River, and, somewhat later, in the lower Yellow River basin, large populations concentrated within the walled settlements that relied on extensive hinterland for their food supplies and other material resources such as timber, stone, and, eventually, metals. Part of the progressing division of labor was the emergence of ruling groups and acceleration of sociopolitical stratification particularly manifest in mortuary habits when exquisite artisanal products (jade, ceramics) symbolic of social prestige and political power were interred in elite tombs.[18] Increasing interaction and cooperation between human communities resulted in the formation of regional and ultimately interregional exchange networks that, some scholars argue, were politically organized into loose confederations of walled

[18] This brief summary is, of course, a gross simplification of convoluted and diverse trajectories to social complexity and political organization. In reality, early complex societies were highly fragile and tended to disintegrate as the result of external, especially environmental, and internal stresses. Intrinsic instability of these societies was exacerbated by the variety of subsistence strategies available to their members who, under certain conditions, opted for economic activities less subject to coordination, control, and extraction on the part of the elites. See, for example, Scott, *Against the Grain: A Deep History of the Earliest States* (New Haven and London: Yale University Press, 2017).

towns, which some authors call "city-states."[19] These networks were often aligned around a prominent ritual center.[20]

One of the most extensive and complex interaction zones formed on the Middle Yangzi, on the Jianghan-Dongting (Lianghu) Plain along the lower reaches of the Han River and around the Yunmeng and Dongting Lakes. It is associated with late Daxi 大溪 (4300–3300 BCE) and especially with Qujialing 屈家嶺 and Shijiahe 石家河 cultures (3000–2100 BCE). The latter two are sometimes considered representative of one and the same society that developed on the basis of Daxi settlements and was considerably more populous, expansive, technologically and socially complex, and horizontally integrated than predecessor.[21] Based on rice agriculture that made use of advanced water-control infrastructure (construction of dykes and embankments reached its peak

[19] The city-state model was and remains popular among the scholars of ancient China as one of the main forms of political organization before the emergence of centralized, bureaucratic, territorial states during the Warring States period, see, for example, Stumpfeldt, *Staatsverfassung und Territorium*, 287-297. While the model is primarily applied to the Shang, Western Zhou, and Spring and Autumn period states, scholars increasingly tend to extend it to the late Neolithic and early Bronze Age societies, see, for example, Yates, "The City-State in Ancient China," in Deborah Nichols, ed., *The Archaeology of City-States: Cross-Cultural Approaches* (Washington, DC: Smithsonian Institution Press, 1997), 71-90. Li Feng doubts the usefulness of the city-state model in the analysis of Western Zhou state, which he defines as a settlement-based state that was founded on delegatory rule. See Li Feng, *Bureaucracy and State*, 271-299. In his opinion, "although a "city-state" system did probably exist for a short period of time during the early to mid Spring and Autumn period and only in the core area of the eastern plain, by and large the "city-state" model is unfit with regard to the political and economic situation of Shang and Western Zhou China." See Li Feng, *Early China*, 184.

[20] For some recent treatments of the rise of social, economic, and political complexity in the late Neolithic East Asia, see Li Feng, *Early China*, 15-40; Guo Jingyun 郭靜雲, *Xia Shang Zhou: cong shenhua dao shishi* 夏商周：從神話到史實 [*Xia, Shang, and Zhou: from myth to history*] (Shanghai: Shanghai guji, 2013), 21-61; Shelach, *The Archaeology of Early China*, 127-160; A.P. Derevianko, ed., *Istorija Kitaja s drevnejshikh vremen do nachala XXI veka* [*History of China from the prehistory till the beginning of the 21st century*]. Vol. 1: *Drevnejshaja i dreviaja istorija (po arkheologicheskim dannym): Ot paleolita do V v. do n.e.* [*Prehistory and ancient history (on the basis of archaeological evidence): From the Paleolithic till the 5th century BCE*] (Moscow: Nauka-Vostochnaja literatura, 2016), 255-302; Li Min, *Social Memory and State Formation*, 42-81.

[21] See, for example, Guo Lixin 郭立新, *Changjiang zhongyou diqu chuqi shehui fuzahua yanjiu (4300 B.C. – 2000 B.C.)* 長江中游地區初期社會複雜化研究（4300 B.C. – 2000 B.C.）[*A study of the early stages of social complexity in Mid-Yangzi Basin (4300–2000 B.C.)*] (Shanghai: Shanghai guji, 2005), 78-89 et pass.; Zhang Chi, "The Qujialing-Shijiahe Culture in the Middle Yangzi River Valley," in Anne Underhill, ed., *A Companion to Chinese Archaeology* (Chichester: Wiley-Blackwell, 2013), 510-534; Guo Jingyun, *Xia Shang Zhou*, 38-61.

during the first half of the third millennium BCE) and was supplemented by the cultivation of millet, domesticated fruit (peach, plum, kiwi), etc., the largest Shijiahe settlements reached the size of 500ha with population well over 10,000 and maybe as many as 50,000 people.[22] It was estimated that the completion of the Shijiahe city wall would have required the work of 1,000 laborers over a period of ten years. Supplying this labor force would additionally require the work of 20,000 to 40,000 farmers, suggesting that the construction and upkeep of major urban centers of the Shijiahe Culture presupposed political control and integration beyond their immediate hinterland.[23]

More than twenty Shijiahe urban centers have been identified and/or excavated so far. They form three distinct clusters located on the Liyang 澧陽 Plain in the lower reaches of the Li River to the west of Dongting Lake (in the vicinity of the modern Li County 澧縣, Changde Municipality 常德市 in north-western Hunan Province); between the Yangzi and the lower reaches of the Han River (roughly coinciding with the modern Jingzhou Municipality 荊州市 and southern parts of Jingmen 荊門市 and Tianmen 天門市 municipalities in Hubei Province); and to the north of the Han River (northern part of the modern Tianmen Municipality, southern part of Xiaogan Municipality 孝感市, Hubei Province), where the largest of the identified Shijiahe settlements was excavated (see Map 3.2).[24] That the large walled settlements belonging to each of these clusters

[22] For crops cultivated by the Shijiahe farmers, see Chen Xuexiang 陳雪香, Zhou Guangming 周廣明, and Gong Wei 宮瑋, "Jiangxi Xingan Niucheng 2006–2008 niandu fuxuan zhiwu yicun chubu fenxi" 江西新干牛城 2006–2008 年度浮選植物遺存初步分析 [An initial analysis of the remains of floating plants discovered during the excavations at Niucheng, Xingan, Jiangxi Province, in 2006–2008], *Jianghan kaogu* 3 (2015): 100-108; Lander, "From Wetland to Farmland". For the population of Shijiahe, the eponymous settlement of Shijiahe Culture, see Zhang Chi, "The Qujialing-Shijiahe Culture," 530 (conservative estimate); Guo Jingyun, *Xia Shang Zhou*, 43 (high count).

[23] For the estimate of labor force needed to build the city wall and moat of Shijiahe settlement, see Nakamura Shinichi 中村慎一, "Sekikaka iseki wo aguru sho mondai" 石家河遺跡をあぐる諸問題 [Problems related to the Shijiahe settlement remains], *Nihon Chūgoku kōko gakkai kaihō* 日本中国考古学会会報 7 (1997): 41-45; Zhang Chi, "The Qujialing-Shijiahe Culture," 519.

[24] The map is based on Guo Jingyun, *Xia Shang Zhou*, 39, map 10.

were located in close proximity to each other, displayed high degree of cultural standardization, including the features of urban planning as well as markers of (religious?) authority, and probably joined forces in large scale construction projects such as walls and embankments, led some scholars to conclude that these communities were members of loose territorial associations alternatively described as confederacies or religious leagues.[25]

Map 3.2: Archaeologically attested Shijiahe Culture settlements in the Middle Yangzi

[25] For the identification of three urban clusters within the Shijiahe cultural sphere as distinct confederations, see Guo Jingyun, *Xia Shang Zhou*, 39-47. For the hypothesis that Shijiahe settlement was a ritual center where "major annual festivals and important religious events" were staged, see Li Min, *Social Memory and State Formation*, 65-66. Rowan Flad and Pochan Chen cautiously suggest that there was no "expansionist polity with political control over the entire region" within the Shijiahe cultural sphere. Still, these scholars recognize that "the Shijiahe site cluster near Tianmen does seem to have emerged as a paramount center," even though they do not specify what kind of center it was. See Flad and Chen, *Ancient Central China: Centers and Peripheries Along the Yangzi River* (Cambridge: Cambridge University Press, 2013), 123-124.

The lower reaches of the Li River to the west of Dongting Lake was the locus of probably the oldest walled settlement on the Central Yangzi, Chengtoushan 城頭山, which dates back to the later period of Daxi Culture (ca. 3500 BCE). By the beginning of the third millennium BCE, at least five other cities were founded on the Liyang Plain, the second largest of which, Jijiaocheng 雞叫城, with the walled area of 15ha, was located about 15km from Chengtoushan.[26] While no major Daxi or Qujialing-Shijiahe settlements have so far been identified to the south of Dongting, archaeological evidence suggests that the inhabitants of relatively densely populated western and northwestern parts of the Dongting Plain interacted with people living upstream of the southern tributaries of the lake. The following passages will briefly discuss the finds in the Yuan River basin.

Remains of a Neolithic settlement at Hexi 河溪 were excavated 20km south-east of the modern city of Jishou 吉首市 at the confluence of the Tonghe 峒河 and Tuojiang 沱江 rivers that jointly form the Wushui 武水 River, the western tributary of the Yuan River. The site yielded numerous fragments of typical Daxi Culture ceramics along with the remains of a defensive wall and a building foundation. The site is dated to the late Daxi and Qujialing periods (late fourth – early third millennium BCE). Archaeologists observe a strong impact of Neolithic cultures in the Dongting region on the local ceramic production. The settlement survived into the later periods until the Han era when large-scale earth works were carried out here.[27]

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[26] Hunan sheng wenwu kaogu yanjiusuo, "Lixian Jijiaocheng gu chengzhi fajue jianbao" 澧縣雞叫城古城址發掘簡報 [Preliminary excavation report on the remains of the ancient city of Jijiaocheng in Li County], *Wenwu* 5 (2002): 58-68.

[27] Xiangxi zizhizhou wenwu guanlichu 湘西自治州文物管理處 and Jishou shi wenwu guanlisuo 吉首市文物管理所, "Jishou shi Hexi jiaochang yizhi fajue jianbao" 吉首市河溪教場遺址發掘簡報 [Preliminary report on the excavations of settlement remains at the Hexi parade ground, Jishou Municipality], in Hunan sheng wenwu kaogu

Further upstream the Yuan River, two more settlements were excavated that yielded large amounts of Qujialing-Shijiahe ceramics. One settlement at Qianggedi 牆隔地, 40km to the west of the modern city of Huaihua 懷化市, had an area of approximately 8ha, making it comparable to the smaller Shijiahe cities on the Dongting Plain, such as Chengtoushan. The settlement endured until the second half of the second millennium BCE.[28] A much smaller site with an estimated area of 1,200 m^2 was discovered at Gaokanlong 高坎壠, some 20km upstream of Qianggedi (an area of 500 m^2 was excavated). In addition to ceramic fragments recovered from the settlement remains, archaeologists excavated some ritual jade paraphernalia from 51 tombs at the site.[29]

Despite the limited number of finds and lack of detailed archaeological reports, available evidence suggests some degree of cultural integration between the Yuan River valley and the middle Yangzi region as early as late fourth and third millennia BCE. It is unclear whether the indigenous populations borrowed some technical achievements of their northern neighbors, such as ceramic production techniques and wall-building, or if the latter ventured upstream to establish settlements. A relatively large size of some sites that yielded considerable volumes of Qujialing-Shijiahe ceramics, comparable to that of the settlements in the core regions of Shijiahe Culture, may suggest that immigrants from the Middle Yangzi introduced some elements of their social and political organization (walled towns?).[30] Again, it is unclear if these immigrants were driven

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yanjiusuo and Hunan sheng kaogu xuehui 湖南省考古學會, eds., *Hunan kaogu 2002* 湖南考古 2002 [*Hunan archaeology 2002*] (Changsha: Yuelu shushe, 2003), 52-71.

[28] Guojia wenwuju 國家文物局 and Hunan sheng wenwuju 湖南省文物局 eds., *Zhongguo wenwu dituji. Hunan fence* 中國文物地圖集。湖南分冊 [*Atlas of cultural relics in China. Hunan Province*] (Changsha: Hunan ditu, 1997), 411.

[29] Zhongguo kaogu xuehui 中國考古學會, ed., *Zhongguo kaogu nianjian 1985* 中國考古年鑑 1985 [*Yearbook of Chinese archaeology 1985*] (Beijing: Wenwu, 1987), 197.

[30] The largest, eponymous site of the Gaomiao 高廟 Culture that flourished along the upper Yuan River in 5800–4800 BCE had an overall area of ca. 3ha, almost three times smaller than the largest of the reported Qujialing-Shijiahe settlements in the Yuan basin. It is still unclear whether this quantitative growth suggests an introduction of a more

out by overpopulation in their homeland, by the quest for resources that could be shipped to the Shijiahe urban centers, or by both. In any event, by the time the Shijiahe society entered a major crisis around 2000 BCE, at least some inhabitants of the lower and middle Yuan basin were already involved in the interaction zone that developed on the Jianghan-Dongting Plain during the Late Neolithic.

The decline of Shijiahe society is often characterized as a "cultural collapse" manifest in precipitous contraction of population and settlement on the Middle Yangzi during the first centuries of the second millennium BCE.[31] This decline was probably tied to environmental events around 2000 BCE, the nature of which is still debated. Some archaeologists and climate historians place the blame on climate cooling, increase in rainfall, and the rise of the water levels in Yunmeng, Dongting, and other lakes along the middle reaches of Yangzi River.[32] Others, on the contrary, suspect that depopulation was caused by droughts.[33] Yet others suggested that the collapse was expedited by the invasions from the North that were possibly coordinated by the Erlitou 二裡頭 state expanding in search of resources.[34] The very fact of the Shijiahe collapse has recently been

complex social organization from outside of the region or an indigenous development possibly accelerated by contacts with the contemporaneous society on the Central Yangzi. For the Gaomiao Culture, see Hunan sheng wenwu kaogu yanjiusuo, "Hunan Qianyang Gaomiao yizhi fajue jianbao" 湖南黔陽高廟遺址發掘簡報 [A preliminary report on the excavation of the Gaomiao site at Qianyang, Hunan Province], *Wenwu* 4 (2000): 4-23; Flad and Chen, *Ancient Central China*, 113.

[31] See, for example, Liu Deyin 劉德銀, "Lun Shijiahe wenhua zaoqi yu Qujialing wenhua wanqi de guanxi" 論石家河文化早期與屈家嶺文化晚期的關係 [Discussions on the relationship between the early Shijiahe Culture and the late Qujialing Culture], *Jianghan kaogu* 3 (1990): 45-50; Liu Shun 劉順, "Hunan xinshiqi shidai de tese wenhua" 湖南新石器時代的特色文化 [Special cultures of the Hunan Neolithic period], *Huaihua xueyuan xuebao* 懷化學院學報 7 (2007): 9-11; Flad and Chen, *Ancient Central China*, 124.

[32] Guo Lixin, *Changjiang zhongyou diqu chuqi shehui fuzahua*, 1-24; Guo Jingyun, *Xia Shang Zhou*, 58-59.

[33] Li Wu et al., "Mid-Holocene Palaeoflood Events Recorded at the Zhongqiao Neolithic Cultural Site in the Jianghan Plain, Middle Yangtze River Valley in China," *Quaternary Science Reviews* 173 (2017): 145-160.

[34] Gao Chongwen 高崇文, "Shilun Changjiang zhongyou yuanshi wenhua de bianqian yu gushi chuanshuo" 試論長江中游原始文化的變遷與古史傳說 [On the ancient historical traditions concering primitive culture change on the

questioned by scholars who argue for an evolutionary scenario when the population migrated away from the areas affected by floods, and the degree of socio-political complexity somewhat declined, but the society did not fully disintegrate.[35] This latter scenario is somewhat supported by the observations on the long-term change in the distribution of settlements around the Dongting Lake. Region-wide migration, accompanied by discontinuation of many sites and sometimes considerable contraction in the number of settlements, appears to have been a typical response to the fluctuation of the lake level as a result of climate change throughout the Holocene.[36]

The later view also emphasizes continuity between the Shijiahe and Panlongcheng 盤龍城 Culture (ca. 1800–1300 BCE). Panlongcheng, a major walled settlement and an important center of copper trade was located on the northern bank of Yangzi River near the modern city of Wuhan 武漢市 (see Map 3.2). It is usually considered an outpost of the Erligang State, the center of which was located in what is now the city of Zhengzhou 鄭州市 in central Henan Province. Panlongcheng was instrumental in the procurement of copper from the mining centers along the Middle Yangzi, such as Tonglüshan 銅綠山 in present-day Huangshi Municipality 黃石市, eastern Hubei Province.[37] Yet considerable continuity between the Shijiahe Culture sites and Panlongcheng

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Middle Yangzi River], in Yan Wenming 嚴文明 and Yasuda Yoshinori 安田喜憲, eds., *Daozuo, taoqi he dushi de qiyuan* 稻作、陶器和都市的起源 [*The origins of rice agriculture, pottery, and cities*] (Beijing: Wenwu, 2000), 189-197; Xiang Taochu 向桃初, "Erlitou wenhua xiang nanfang de chuanbo" 二里頭文化向南方傳播 [Southward expansion of the Erlitou Culture], *Kaogu* 10 (2011): 47-61. For the territorial expansion of Erlitou in 1900–1600 BCE, see Liu Li and Xingcan Chen, *State Formation in Early China* (London: Duckworth, 2003), 57-84; Li Feng, *Early China*, 42-48. Note, however, the the fact of military expansion has been questioned by some archaeologists who argued that Erlitou did not possess organizational capacity to launch long-distance campaigns, let alone establish permanent garrisons far away from its home base. See Shelach, *The Archaeology of Early China*, 189-190.

[35] Guo Jingyun, *Xia Shang Zhou*, 57-60.

[36] Tao Liu, Zhongyuan Chen, Qianli Sun, and Brian Finlayson, "Migration of Neolithic Settlements in the Dongting Lake Area of the Middle Yangtze River Basin, China: Lake-Level and Monsoon Climate Responses," *The Holocene* 22.6 (2011): 649-657.

[37] On Panlongcheng, see, for example, Xu Shaohua, "Cong Panlongcheng yizhi kan Shang wenhua zai Changjiang zhongyou diqu de fazhan" 從磐龍城遺址看商文化在長江中游地區的發展 [Development of the Shang culture in

settlement in ceramic types and ornamentation, city planning, and burial customs have led some scholars to hypothesize that Panlongcheng was in fact the new center of the indigenous society directly descendent from Shijiahe, not the colony of a power based outside of the region.[38]

While the cultural affiliation of Panlongcheng remains debated, it was part of the Early Bronze Age interaction zone along the middle reaches of Yangzi, that by and large coincided with the Qujialing-Shijiahe world in its geographic shape. Its centers both to the north and to the south of the river shifted eastward, with the sites to the east of Dongting Lake in what is now Yueyang Municipality 岳陽市 of Hunan emerging as the new centers of settlement and bronze metallurgy.[39] To the west of the lake, indigenous cultures of the Li River basin, represented by the sites of Zaoshi 皂市 and Baota 寶塔, maintained regular contacts with political and ritual centers in the Yueyang region and to the north of the Yangzi, such as Tonggushan 銅鼓山 and Panlongcheng.[40]

Some characteristics of the Middle Yangzi interaction sphere certainly changed during the third and second millennia BCE. Emergence and spread of bronze metallurgy along with ecological change and, possibly, arrival of new populations were among the key factors in the relocation of urban centers and redistribution of networks through which resources and

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the Middle Yangzi region as seen from the Panlongcheng remains], *Jianghan kaogu* 1 (2003): 40-44; Flad and Chen, *Ancient Central China*, 126-128.

[38] Guo Jingyun, *Xia Shang Zhou*, 88-102.

[39] For a recent discussion of Early Bronze Age sites south of the Middle Yangzi, see Robin McNeal, "Erligang Contacts South of the Yangzi River: The Expansion of Interaction Networks in Early Bronze Age Hunan," in Kyle Steinke and Dora C.Y. Ching, eds., *Art and Archaeology of the Erligang Civilization* (Princeton: Princeton University Press, 2014), 173-187.

[40] See He Jiejun 何介鈞, Cao Chuansong 曹傳松, "Hunan Lixian Shang Zhou shiqi gu yizhi diaocha yu tanjue" 湖南澧縣商周時期古遺址調查與探掘 [Survey and study of the Shang and Zhou period remains in Li County, Hunan], *Hunan kaogu jikan* 湖南考古輯刊 4 (1987): 1-10; Hunan sheng wenwu kaogu yanjiusuo 湖南省文物考古研究所, "Hunan Shimen Zaoshi Shang dai yicun" 湖南石門皂市商代遺存 [The Shang era remains at Zaoshi, Shimen, Hunan Province], *Kaogu xuebao* 2 (1992): 185-219; McNeal, "Erligang Contacts," 180-182; Flad and Chen, *Ancient Central China*, 129-130.

information circulated.[41] Much of this story is still unclear as archaeological evidence remains limited, especially from the peripheral zones such as the Yuan River basin. While the occupation of some Qujialing-Shijiahe sites in this area continued until the end of the second millennium BCE or even later, it is uncertain if they maintained connections with the new centers on the Middle Yangzi and around Dongting Lake. Yet, the available evidence suggests that in its general outlines, the Middle Yangzi interaction zone that emerged in the Late Neolithic endured through the second millennium BCE in spite of the major upheavals after 2000 BCE. In the first millennium, it became the stage of territorial state formation and, eventually, empire-building.

1.2. From interaction zone to territorial state

The decline of Panlongcheng in the second half of the second millennium BCE initiated disintegration of the Middle Yangzi interaction sphere as "several small-scale local centers [have] emerged or regained prominence."[42] Some scholars argued that the northern part of the region was politically dominated by the Shang 商 state that was prominent in Northern China during the thirteenth – mid-eleventh centuries BCE and is known to have campaigned in the south, while indigenous powers survived to the south of Yangzi.[43] Bronze vessels dated from the Shang period and excavated in the northern part of Hunan Province attest to the thriving of local metallurgy that was strongly influenced by the artistic developments at the great bronze casting center at Anyang 安陽, the Shang capital in the north of the present-day Henan Province. However, no Shang

[41] It was recently argued that Shijiahe Culture was already familiar with copper metallurgy and exploited copper mines of the Middle Yangzi region, such as Tonglüshan, for ores, thus contributing to the formation of new exchange networks that endured into the Panlongcheng period. See Guo Jingyun, *Xia Shang Zhou*, 47-49.

[42] Flad and Chen, *Ancient Central China*, 130.

[43] Guo, *Xia Shang Zhou*, 111-112.

political presence is attested to the south of Middle Yangzi, and bronze vessels based on Anyang prototypes and produced in northern Hunan region were probably not used in the Shang-style ancestral rituals.[44]

A consistent effort to establish their political presence on the Middle Yangzi was undertaken by the Western Zhou state that superceded the Shang as the dominant power at the Central Plains of North China in the second half of the 11th century BCE. To this purpose, the Zhou rulers founded the regional state of Zeng 曾 on the Jianghan Plain to the north of Yangzi and to the east of the lower and middle Han River. Sites associated with the Western Zhou culture were concentrated on the Jianghan Plain to the north of Yangzi and to the east of the lower and middle Han River. Along with a number of smaller military garrisons, Zeng became the major conduit of Zhou power, cultural influence, and economic interests in the south.[45] This was also the earliest recorded attempt by the north-based power to establish permanent, institutionalized political presence on the Middle Yangzi.

While the regions to the south of the Yangzi developed their distinctive bronze traditions, finds of Shang and Western Zhou bronzes to the south of Dongting Lake indicate that societies to the north and south of the river maintained connections and probably participated in common

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[44] See Virginia Kane, "Bronze Industries in the South of China Contemporary with the Shang and Western Chou Dynasties," *Archives of Asian Art* 28 (1974/1975): 77-107.

[45] For the state of Zeng, see, for example, Shi Quan 石泉, "Gudai Zeng guo – Sui guo diwang chutan" 古代曾國–隨國地望初探 [A preliminary discussion of the location of the ancient state of Zeng-Sui], *Wuhan daxue xuebao (renwen kexue ban)* 武漢大學學報（人文科學版） 1 (1979): 60-69; Olivier Venture, "Zeng: The Rediscovery of a Forgotten State," in Gábor Kósa, ed., *China across the Centuries: Papers from a Lecture Series in Budapest* (Budapest: Department of East Asian Studies, Eötvös Loránd University, 2017), 1-32; Fang Qin 方勤, *Zeng guo lishi yu wenhua: cong "zuo you Wen Wu" dao "zuo you Chu wang"* 曾國歷史與文化：從"左右文武"到"左右楚王" [*History and culture of the state of Zeng: From "assisting Kings Wen and Wu" to "assisting the King of Chu"*] (Shanghai: Shanghai guji, 2018). For the Zhou military garrisons in other areas to the north of the Middle Yangzi, see, for example, Wu Xiaosong 吳曉松 and Hong Gang 洪剛, "Hubei Qichun Dacheng Xinwuwan jiaocang qingtongqi ji xiangguan wenti de yanjiu" 湖北蘄春達城新屋灣窖藏青銅器及相關問題的研究 [Research on the bronzes in cache pits at Xinwuwan in Dacheng, Qichun, Hubei, and related issues], *Wenwu* 12 (1997): 52-54.

exchange networks.[46] Bronzes found at Gaoshaji 高砂脊 (near modern Changsha City 長沙市 in the lower Xiang River basin), for example, document the presence of elites that shared in the Western Zhou ritual culture.[47] It is likely that the Shang and Western Zhou expansion into the region and their interaction with communities to the south of the river were driven by the quest for metal ores.[48] In particular, the major site of copper mining at Tonglüshan dramatically expanded during the late Shang (ca. 1300–1046 BCE) and Western Zhou periods. It became the focal node in the bronze production network on the Middle Yangzi, which, in turn, was increasingly integrated in the political economies to the north.[49]

The decline of the Western Zhou state in late ninth and early eighth centuries BCE and its ultimate fall in 771 BCE was accompanied by the rise and expansion of regional powers. During the Spring and Autumn and Warring States periods, one of these powers, Chu, became the force behind the transformation of a loose interaction network on the Middle Yangzi into a distinct regional society characterized by shared social organization and cultural habits, and eventually into a territorial state that incorporated the region on either side of the Yangzi.

The origins, geographic localization, and the early history of the Chu polity are a matter of ongoing debate among archaeologists, paleographers and historians. According to the transmitted

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[46] For the southern bronze-casting traditions of the Erligang and Shang periods, see Robert Bagley, "The Zhengzhou Phase (The Erligang Period), and the Appearance and Growth of Regional Bronze Using Cultures," in Wen Fong, ed., *The Great Bronze Age of China* (New York: Alfred Knopf, 1980), 97-133.

[47] Hunan sheng wenwu kaogu yanjiusuo et al., "Hunan Wangcheng xian Gaoshaji Shang Zhou yizhi de fajue" 湖南望城縣高砂脊商周遺址的發掘 [Excavations at the Shang and Zhou period site of Gaoshaji in Wangcheng County, Hunan], *Kaogu* 4 (2001): 27-44.

[48] See, for example, Shelach, *The Archaeology of Early China*, 241-242.

[49] For the expansion of copper mining at Tonglüshan during the late Shang and Western Zhou periods, see, for example, Hu Xinsheng 胡新生, *Huangshi wenhua yichan* 黃石文化遺產 [*The cultural legacy of Huangshi Municipality*] (Wuhan: Changjiang, 2015), 74-93 et pass. For the bronze production network on the Middle Yangzi in the late second and early first millennium BCE, see Flad and Chen, *Ancient Central China*, 189-190.

records, the would-be Chu rulers were close allies of Zhou before and immediately after the Zhou conquest of Shang in 1046 BCE and were enfeoffed at Danyang 丹陽 in the lower reaches of the Dan 丹 River where the boundaries of Hebei, Shaanxi and Hunan Provinces converge.[50] By the middle of the Western Zhou period, however, the state of Chu emerged as a major adversary of the Zhou royal court in the south and one of the targets of King Zhao's 昭王 (977/75–957 BCE) disastrous campaign when the core of the Zhou professional military was destroyed.[51] While the Zhou identity of the Chu elites is manifest in their adherence to the Zhou ritual system and sumptuary standards,[52] some scholars argue that the state of Chu should equally be seen as an heir to the two millennia-long statecraft traditions of the Middle Yangzi region traceable back to the Qujialing-Shijiahe city-states.[53] Both views may have some merit, as the local elites in the Han and Middle Yangzi basin were adopting socio-cultural standards introduced from the north.

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[50] See, for example, Barry Blakeley, "The Geography of Chu," in Constance Cook and John Major, eds., *Defining Chu: Image and Reality in Ancient China* (Honolulu: University of Hawaii Press, 1999), 9-20; Yin Hongbing 尹弘兵, "Shang mo Zhou chu de Danyang jiqi kaoguxue tansuo" 商末周初的丹陽及其考古學探索 [An archaeological investigation into the location of Danyang in the late Shang and early Zhou period], in Chu wenhua yanjiuhui 楚文化研究會, ed., *Chu wenhua yanjiu lunji* 楚文化研究論集 [*Collected papers in the Chu culture studies*], vol. 10 (Wuhan: Hubei meishu, 2011), 378-391.

[51] For King Zhao's southern campaign and its role in the decline of the Western Zhou power, see Li Feng, *Landscape and Power*, 93-95. By this time, the Chu polity had already expanded down the Han River. Some scholars believe that by the late Western Zhou period its center drifted southwards and was located near the modern city of Yicheng 宜城 to the south of Xiangyang 襄陽 in Hubei Province. See Da Haobo 笪浩波, "Cong jinnian chutu xin cailiao kan Chu guo zaoqi zhongxin quyu" 從近年出土新材料看楚國早期中心區域 [The core region of the early Chu state as seen from the recent excavated materials], in *Chu wenhua yanjiu lunji*, vol. 10, 361-377.

[52] On this point, see, for example, Falkenhausen, *Chinese Society*, 262-271.

[53] For the early attempts to trace the origins of the "Chu culture" back to the prehistoric culture sequences in southwestern Hubei, see Yu Weichao 俞偉超, "Guanyu Chu wenhua fazhan de xin tansuo" 關於楚文化發展的新探索 [New explorations into the development of Chu culture], *Jianghan kaogu* 1 (1980): 17-30; Yu Weichao, "Xian Chu yu San miao wenhua de kaoguxue tuice" 先楚與三苗文化的考古學推測 [Archaeological inferences on proto-Chu and the culture of the Three Miao tribes], *Wenwu* 10 (1980): 1-12. For a recent statement of the Middle Yangzi origins of Chu, see Guo Jingyun, *Xia Shang Zhou*, 102-120.

From their advantageously-located base at the confluence of the Dan and Han Rivers that enjoyed equally convenient access to the middle and lower reaches of the Han River, the Nanyang 南陽 Basin in south-western Henan, and the Huai River valley, the Chu embarked on territorial expansion soon after the fall of the Western Zhou.[54] Some of the most spectacular successes were achieved in the south where the state of Chu came to dominate the Middle Yangzi region, which became its new center of gravity and where its capital was moved to in the early seventh century BCE.[55]

While the relatively detailed transmitted narrative outlines the process of the Chu conquests, archaeological material, primarily represented by burials, provides an independent line of evidence on the formation of the Chu socio-cultural sphere. Archaeologists identified a distinct burial culture associated with the Chu and representative of the everyday habits (use of ceramic and bronze cooking and food serving vessels), mortuary practice (tomb orientation, tomb architecture such as wall niches, etc.), and social ranking (size of tombs, tomb furniture including burial chambers and coffins, assemblages of burial goods) in Chu society.[56] Despite regional variations, these shared characteristics of the Chu tombs mark a relatively homogenous society and, by

[54] The two main transmitted sources for the political history of Chu during the Eastern Zhou (771–221 BCE) era are *Zuo's Commentary to the Spring and Autumn Annals* (*Chunqiu Zuozhuan* 春秋左傳) and the "Ancestral House of Chu" (*Chu shijia* 楚世家) chapter of the *Shiji.* Additionally, a recently published Warring States manuscript from the Qinghua University collection titled *The Residences of Chu* (*Chuju* 楚居) records the territorial movements of the Chu royal ancestors. Archaeological evidence provides for a more nuanced understanding of the process of Chu expansion and incorporation of smaller polities along the Han River, see Chao, "Culture Change and Imperial Incorporation".

[55] For a brief English-language overview of the Chu campaigns in Hubei and its move of capital around 690 BCE, see Blakeley, "The Geography of Chu," 13-15. Scholars identify the new Chu capital of Ying 郢 with a number of different sites, including Chu Huangcheng 楚皇城, Jinancheng 紀南城, and Jijiahu 季家湖, see Flad and Chen, *Ancient Central China*, 134-135.

[56] For a detailed discussion, see Falkenhausen, "Social Ranking in Chu Tombs: The Mortuary Background of the Warring States Manuscript Finds," *Monumenta Serica* 51 (2003), 439-526; Flad and Chen, *Ancient Central China*, 243-257; Chao, "Culture Change and Imperial Incorporation," Chapter 5.

extension, provide for a reasonably reliable identification and dating of the Chu cultural influences and the arrival of Chu populations in a specific area. It is these characteristics, conventionally referred to by archaeologists as the "Chu-style" items, ornamental features, etc. (cf. "Chu-style *ding* and *li* tripods", "Chu-style ceramics", "Chu-style grave goods", "Chu-style tomb wall niches", and so on), that make possible the study of Chu cultural and political reach in the areas for which barely any or no written record exists, such as the lands to the south of the Middle Yangzi and especially mountainous Western Hunan.

The chronology of Chu expansion in Hunan builds upon the periodization of locally excavated archaeological finds, primarily burials, associated with the Chu culture. Chronology is based on comparison with the Chu sites on the Jianghan Plain and in the Han River valley, for which a relatively reliable seriation is available. While some earlier studies tended to date the Chu presence to the south of the Middle Yangzi to the Western Zhou period,[57] recent research suggests the Chu power extended to northern Hunan no earlier than the mid-Spring and Autumn (seventh and early sixth centuries BCE), although Chu cultural influence and probably the settlement of some Chu populations in the area are observable already at the beginning of this period.[58]

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[57] See, for example, Cao Chuansong 曹傳松, "Xiang xibei Chu cheng diaocha yu tantao – jianlun youguan Chu shi jige wenti" 湘西北楚城調查與探討–兼論有關楚史幾個問題 [Survey and discussion of the Chu towns in north-western Hunan, with observations on several problems of Chu history], in Chu wenhua yanjiuhui, ed., *Chu wenhua yanjiu lunji*, vol. 2 (Wuhan: Hubei renmin, 1991), 177-190, esp. 187; Guo Weimin 郭偉民, "Guanyu zaoqi Chu wenhua he Chu ren ru Xiang wenti de zai tantao" 關於早期楚文化和楚人入湘問題的再探討 [Re-visiting the problem of the arrival of early Chu culture and Chu populations to Hunan], *Zhongyuan wenwu* 中原文物 2 (1996): 62-68.

[58] Li Haiyong 李海勇, "Hunan zaoqi Chu wenhua de lishi dili fenxi" 湖南早期楚文化的歷史地理分析 [An analysis of the historical geography of early Chu culture in Hunan], *Zhongguo lishi dili luncong* 中國歷史地理論叢 16.2 (2001): 97-103; Li Haiyong, "Chu ren dui Hunan de kaifa jiqi wenhua ronghe yu yanbian" 楚人對湖南的開發及其文化融合與演變 [The Chu colonization of Hunan and concomitant cultural synthesis and change], Ph.D. dissertation, Wuhan University, 2003. For a summary of scholarship, see Fujita Katsuhisa 藤田勝久, *Chūgoku kodai kokka to gunken shakai* 中国古代国家と郡県社会 [*Ancient Chinese state and provincial society*] (Tokyo: Kyūko shoin, 2005), 186-187.

Unsurprisingly, the Chu settlers to the south of the Yangzi were primarily attracted by the regions that had the longest history of participation in the Middle Yangzi interaction zone, maintained contacts with other centers along the Middle Yangzi, and probably already possessed some experience of political integration within the region. The earliest sites that archaeologists identified as the settlements of Chu migrants coming from the north of Yangzi, Zhoujiawan 周家灣, Huangnigang 黃泥崗, and Zhoujiafen 周家坟, are all located in Li County along the lower reaches of the Li River to the west of the lake.[59] Other early Chu cemeteries dating from the mid-Spring and Autumn period were excavated to the east of Dongting Lake in present-day Yueyang Municipality, in Yiyang Municipality 益陽市 to the south of Dongting, and in the lower Yuan River valley in Changde Municipality to the south-west of the lake. In this later area, over 1,500 Chu-style tombs dating from the Spring and Autumn and Warring States periods were discovered, including some elite burials.[60]

During the Warring States period, Changsha in the lower reaches of Xiang River to the south of Dongting Lake emerged as the major area of Chu settlement. The scale of migration, the evidence for (violent?) removal of the aboriginal populations to hilly and marshy terrain surrounding the alluvial plain, and written record of the establishment of Chu administration to the south of the Yangzi (to be discussed in more detail below) suggest this expansion was at least partly organized and/or supported by the Chu state. By the end of the Warring States period, "Chu

[59] Li Haiyong, "Hunan zaoqi Chu wenhua," 100-101.

[60] Li Haiyong, "Hunan zaoqi Chu wenhua," 99-101; Flad and Chen, *Ancient Central China*, 255-256; Fujita, *Chūgoku kodai kokka to gunken shakai*, 187. For the publication of Chu mortuary materials from the lower Yuan River basin, see Hunan sheng Changde shi wenwuju 湖南省常德市文物局 et al., *Yuanshui xiayou Chu mu* 沅水下游楚墓 [*Chu tombs at the lower Yuan River valley*] (Beijing: Wenwu, 2010).

material culture reigned supreme throughout the Xiang River valley".[61] During the Chu-Qin wars of the 270's BCE, Jiangnan ("Land to the south of the Yangzi River") was one of the key bulwarks of Chu resistance (see Chapter 2). Some scholars argue that the mass Chu migration to Hunan in the mid- and late Warring States period was the result of the increasing military threat and eventual conquest by the Qin of the Chu core region on the Jianghan Plain to the north of the Yangzi.[62]

While the major centers of Chu settlement during the Eastern Zhou era concentrated around Dongting Lake, some Chu populations also migrated up the Yuan River and its tributaries. Numerous Chu-style tombs that sometimes form cemeteries were discovered in the middle and upper reaches of the river and along its tributaries. The reported finds are dated mainly to the mid- and late Warring States.[63] Many of these tombs cluster around the walled settlements, nine of which have been reported for the Yuan River basin.[64]

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[61] Falkenhausen, *Chinese Society*, 285-286.

[62] He Jiejun, "Hunan wanqi Chu mu jiqi lishi beijing" 湖南晚期楚墓及其歷史背景 [Late-period Chu tombs in Hunan and their historical background], in *Chu wenhua yanjiu lunji*, vol. 2, 112-124.

[63] A number of archaeological reports on the excavation of ancient tombs in the Yuan River basin, including the Chu-style tombs of the Warring States period, were published in *Hunan kaogo 2002*, see, for example, Xiangxi zizhizhou wenwu guanlichu and Guzhang xian wenwu guanlisuo 古丈縣文物管理所, "Guzhang xian Baihewan Zhanguo Xi Han mu fajue baogao" 古丈縣白鶴灣戰國西漢墓發掘報告 [Archaeological report on the Warring States and Western Han tombs at Baihewan, Guzhang County], 147-173; Xiangxi zizhizhou wenwu guanlichu and Baojing xian wenwu guanlisuo 保靖縣文物管理所, "Baojing Sifangcheng Zhanguo, Handai muzang fajue baogao" 保靖四方城戰國、漢代墓葬發掘報告 [Archaeological report on the Warring States and Han period tombs at Sifangcheng, Baojing], 174-224. A large Chu cemetery was also discovered at Maicha 麥茶 near Liye. Archaeological report accounts for 236 tombs excavated by May-June 2002, see *Liye fajue baogao*, 240-373. The authors of the report describe the majority of tombs at this cemetery as typical of the late Warring States period Chu mortuary culture. Some tombs probably belonged to the indigenous inhabitants of the area.

[64] The following summary of the discovery and study of Chu walled towns in the Yuan River basin is primarily based on Cao Chuansong, "Xiang xibei Chu cheng diaocha yu tantao," 177-190; Fujita, "Shin Kan kantoku to Riya shūben no chyōsa nōto" 秦漢簡牘と里耶周辺の調査ノート [Notes on the Qin and Han documents on bamboo and wood and the survey of the Liye area], in Fujita, ed., *Riya Shin kan, seihoku Kan kan to jicchi chyōsa ni yoru Shin Kan chiiki shakai no kenkyū* 里耶秦簡、西北漢簡と実地調査による秦漢地域社会の研究 (Matsuyama: Ehime daigaku hōbungakubu, 2015), 41-62.

Four of these were located in the lower reaches of the river. A walled town initially identified as the seat of the Chu Qianzhong 黔中 Commandery was discovered in the vicinity of the modern town of Yuanling 沅陵 at the confluence of the Yuan and You rivers (see Map 3.3). Another two fortified settlements were located along the You River, the western tributary of the Yuan. One of them was at Liye. It eventually came under the control of Qin who used it as the seat of their Qianling County. Some 50km downstream, a town at Sifangcheng 四方城, Baojing County 保靖縣, had a walled area of some 9ha. While it is unclear when this wall was constructed, a large cluster of Chu-style Warring States tombs immediately to the north of the town and the remains of Warring States period granary suggest the settlement was founded during the mid- or late Warring States. The fortress overviewed the confluence of the You and Qingshui 清水 Rivers.[65]

A fortress at Wucheng 五城 was located on the hilltop and overviewed the confluence of the Yuan River and its another major western tributary, the Jin River 錦江. Like Yuanling, it facilitated control over the access to the Yuan basin. Additionally, it may also have served as a checkpoint on the trade route that connected the copper mines at Mayang 麻陽 up the Jin River to the Middle Yangzi. These mines developed during the Eastern Zhou period and were functioning by the time when Chu settlers advanced into the middle and upper reaches of the Yuan River.[66]

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[65] For the recent archaeological finds at Sifangcheng, see Long Jingsha 龍京沙, "Liye gucheng yizhi fanying de jige wenti" 里耶古城遺址反映的幾個問題 [Some problems related to the ancient town site at Liye], in *Liye gucheng, Qin jian yu Qin wenhua yanjiu*, 74-83; Fujita, "Shin Kan kantoku to Riya shūben no chyōsa nōto," 47.

[66] Cao Chuansong, "Xiang xibei Chu cheng diaocha yu tantao," 186; Joseph Needham and Peter Golas, *Science and Civilisation in China*, vol. 3: *Chemistry and Chemical Technology*. Part XIII: *Mining* (Cambridge: Cambridge University Press, 1999), 83-84.

Finally, the fortress at Yiling 義陵 was instrumental in controlling the moves of people and goods along the eastern tributary of the Yuan, the Xu River 溆水.

Along with the Chu towns in the Li River basin, these walled settlements share a number of features that suggest they were probably constructed not only around the same time but also according to the same plan. All towns have a rectangular layout and north-south cardinal orientation, and have gates on each of the four sides (see Illustration 3.1).[67] With the exception of Suoxian 索縣 town near the modern city of Changde and the fortress near Yuanling, the sites consist of a single walled enclosure. All of them occupied high ground along the rivers, which facilitated supply and defense. Remains of what archaeologists identified as beacon towers in the vicinity of some of these fortresses suggests they were facing military threats and had to be prepared to repulse enemy incursions.[68]

Illustration 3.1: The Warring States Chu town at Suoxian: satellite image and the remains of town walls

[67] Fujita, "Shin Kan kantoku to Riya shūben no chyōsa nōto," 53.

[68] Cao Chuansong, "Xiang xibei Chu cheng diaocha yu tantao," 184-185.

The timing and scale of the town-building in north-western and western Hunan during the mid- and late Warring States period corroborates the transmitted and excavated textual evidence on the Chu state expansion to the south of the Yangzi in the fourth and third centuries BCE. First, during this period, the Wuling Mountains 武陵山 region to the west of Dongting Lake became an arena of increasingly fierce competition between Chu and the polity of Ba 巴 based in Eastern Sichuan and the Three Gorges region (modern Chongqing Municipality). After the latter was extinguished by the Qin in 316 BCE, the south bank of the Yangzi from the Three Gorges to the Lianghu Plain became a theater of Chu-Qin warfare. During the campaign of 280–276 BCE Qin troops briefly occupied the Chu lands between the Wuling Mountains and Dongting Lake but were repulsed by the mobilized Chu forces (see Chapter 2). In the face of escalating military threats from the west, the state of Chu moved to transform its south-western periphery into a fortified military frontier, and probably participated in organizing colonization of the region.[69]

Second, an imposition of a regular territorial administration was part of the effort to mobilize local human and material resources and to consolidate military defense. Some of the fortified towns in north-western and western Hunan have been identified as the seats of enfeoffed lords (*fengjun* 封君) and county centers.[70] From the Spring and Autumn period on, counties were instrumental in consolidating central government control over the newly conquered lands. The state of Chu was among the pioneers of the county system.[71] In terms of size and administrative

[69] For an analysis of the Chu archaeological sites in western Hunan in the context of mid- and late Warring States military rivalry between the states of Chu, Ba, and Qin, see, for example, Gao Chongwen, "Cong Liye gucheng, Danfeng gucheng de kaogu faxian tan Qin Chu guanxi" 從里耶古城、丹鳳古城的考古發現談秦楚關係 [Relationships between Qin and Chu in the light of archaeological discovery of the ancient towns of Liye and Danfeng], in Zhongguo shehui kexueyuan kaogu yanjiusuo et al, eds., *Liye gucheng, Qin jian yu Qin wenhua yanjiu*, 60-67.

[70] Cao Chuansong, "Xiang xibei Chu cheng diaocha yu tantao," 185-186.

[71] Li Feng, *Early China*, 166-170.

functions, fiefdoms were largely analogous to counties. They started to be established in the late sixth century BCE, probably in order to boost the power of the Chu royal clansmen as a counterweight to the county magistrates.[72]

Archaeological discoveries of Chu documents, particularly a collection of texts on bamboo slips excavated from the tomb of a high-ranked Chu official at Baoshan 包山 (dated 316 BCE), considerably improved our understanding of the Chu fiefdom system, including its geographic distribution. A recent study of this system suggests that starting sometime in the middle of the fourth century BCE the Chu rulers began to make enfeoffments to the south of Middle Yangzi, with half of the recorded cases concentrated in the Li and Yuan river basins. While no single enfeoffment in the Jiangnan is recorded for the fifth and the beginning of the fourth century, this region accounts for 20% of all known enfeoffments between 381 and 263 BCE.[73] The similarly detailed chronology of the Chu counties in Jiangnan region is unavailable, yet it seems likely that many walled towns excavated in this region were built as county seats.

Simultaneously with colonization, town-building, and foundation of new administrative centers to the south of Yangzi, the Chu rulers were organizing the region into larger territorial units, the commanderies (*jun* 郡). Commanderies were an important administrative innovation of the Warring States era. They were originally established in the frontier zones to facilitate control over large but sparsely populated territories and to consolidate military command, procurement, and manufacturing of weapons.[74] By the third century BCE they were becoming a common form

[72] Zheng Wei, *Chu guo fengjun yanjiu*, 51-52.

[73] Zheng Wei, *Chu guo fengjun yanjiu*, 170-187, 212-214.

[74] Note, however, that the history of the commandery institution in each of the "warring states" was probably different. Fujita observed that in the state of Qin the first super-county administrative unit was established not at the frontier but in the Wei River basin and was designed to coordinate the administration of the state's heartland rather than to consolidate the frontier defense. See Fujita, *Chūgoku kodai kokka to gunken shakai*, 64. Moreover, in some states

of administering the conquered lands regardless of their location and degree of economic development. While most or all of the "warring states" appear to have been familiar with this institution, the majority of the commanderies were established by the powers that embarked on aggressive territorial expansion, especially the Qin. The states of Yan and Zhao founded commanderies along their northern frontiers. In the state of Chu, some of the largest commanderies were established in the lands to the south of Yangzi.[75]

The earliest mentions of the Chu commanderies are dated from the mid-Warring States period.[76] By the end of the fourth century BCE, two commanderies, Wu 巫 and Qianzhong 黔中, were established on the southern bank of the Yangzi to the west of Dongting Lake.[77] Precise geographic location of either is uncertain. Most scholars agree that the Wu Commandery was sealing the western entrance to the Wu Gorge of the Three Gorges region (the modern Wushan County 巫山縣 of Chongqing Municipality), while Qianzhong Commandery was located to the south and south-east of Wu and included most of the Li and Yuan River basins along with the outposts in the Wuling Mountains that guarded the passes connecting the greater Dongting region to the Wu River basin in the west (see Map 3.3).[78] It was the Qianzhong Commandery that most

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commanderies may have originated as sub-county units, as suggested by the statement in *Yizhoushu* 逸周書 that "each county was composed of four commanderies", see Huang Huaixin 黃懷信, Zhang Maorong 張懋鎔, and Tian Xudong 田旭東, eds., *Yizhoushu huijiao jizhu* 逸周書彙校集注 [*Collected editions and annotations of the* Yizhoushu] (Shanghai: Shanghai guji, 2007), 5.530.

[75] For a comprehensive overview of the institution of the commandery and comparison between the commandery organization in the state of Qin and other "warring states," see Tsuchiguchi, *Senshin jidai no ryōiki shihai*, 123-164.

[76] For a recent study of the Chu commanderies, see Chen Ruosong 陳若松, "Zhanguo Chu jun yanjiu" 戰國楚郡研究 [A study of Chu commanderies during the Warring States period], M.A. thesis, Wuhan University, 2018.

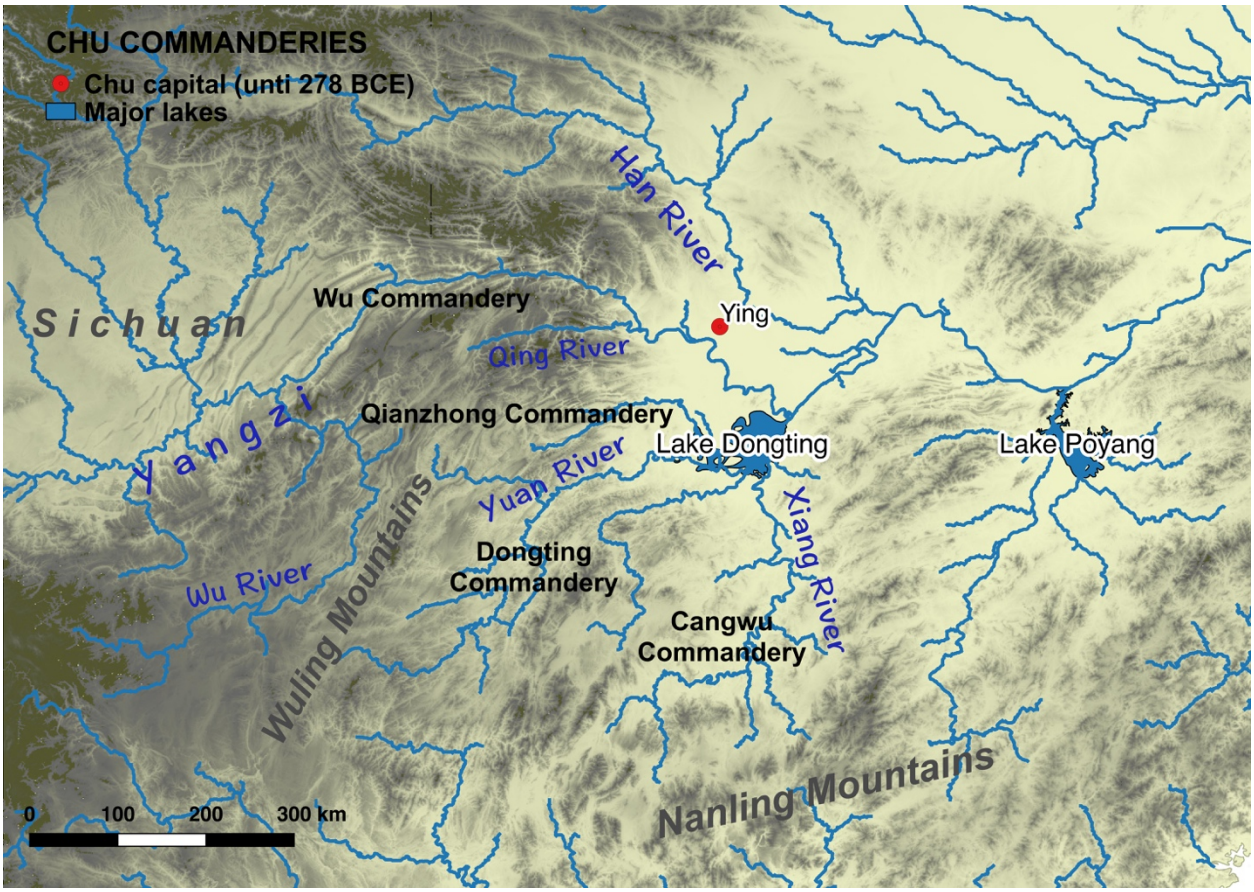
[77] The *Shiji* chapter devoted to Chu history, the "Ancestral house of Chu" (*Chu shijia* 楚世家), reports that in 302 BCE the state of Qin demanded that King Huai 懷王 of Chu (328–299 BCE), then detained in Qin, surrender these two commanderies in return for his freedom, which he refused to do. See *Shiji*, 40.1728.

[78] See, for example, He Gang 賀剛, *Chu Qianzhong di jiqi wanqi muzang de chubu kaocha* 楚黔中地及其晚期墓葬的初步考察 [*The Chu region of Qianzhong and a preliminary analysis of its later period burials*] (Changsha: Hunan

likely incorporated the above-mentioned fortified towns in the Yuan and Li River basins as its subordinate administrative units, some of which were fiefdoms and other probably counties. As of the present time, the administrative geography of the Chu commanderies is understood insufficiently to allow identification of most of these towns with specific sub-commandery units, and even the locations of commandery seats remains debated.[79]

sheng wenwu kaogu yanjiusuo, 1992); Zhao Bingqing 趙炳清, "Chu, Qin Qianzhong jun lüelun – jianlun Qu Yuan zhi zunian" 楚、秦黔中郡略論─兼論屈原之卒年 [A preliminary discussion of the Qianzhong Commandery of Qin and Chu, with a reference to the question of Qu Yuan's date of death], *Zhongguo lishi dili luncong* 3 (2006): 107-115; Zhou Shucan, "Zhanguo shiqi Chu guo zhi jun wenti san lun" 戰國時期楚國置郡問題三論 [Three essays on the problem of commandery establishment in the Warring States period state of Chu], *Guizhou shifan daxue xuebao (shehui kexue ban)* 貴州師範大學學報（社會科學版） 3 (2010): 17-21; Chen Ruosong, "Zhanguo Chu jun yanjiu," Chapter 2. For the map, see also *Zhongguo lishi dituji*, vol. 1, 45.

[79] Most scholars agree that the seat of Qianzhong Commandery was situated in the Yuan River basin, with the walled town near modern Yuanling at the confluence of the Yuan and You Rivers being a likely location. Some even name this town "The ancient city of Qianzhong" (*Qianzhong gucheng* 黔中古城), see, for example, Cao Chuansong, "Xiang xibei Chu cheng diaocha yu tantao," 183. However, other scholars argue on the basis of the *Shiji* account of the routes of Qin campaigns against Chu in 280–276 BCE that the commandery center should have been situated in the Wu River basin to the west of the Wuling mountain range, see Chen Ruosong, "Zhanguo Chu jun yanjiu," Chapter 2.



Map 3.3: Chu commanderies on the Middle Yangzi

The foundation of a regular territorial administration to the south of the Yangzi proved instrumental in resisting the Qin invasion of 280–276 BCE. While its heartland on the Jianghan Plain fell into the hands of Qin, Chu was able to mount a counter-offensive to the south of the river. According to the *Shiji* record, some hundred thousand troops were mobilized in 276 BCE to reconquer fifteen towns lost the previous year.[80] While this account mentions that the army was raised in the "eastern lands" (*dong di* 東地), scholars argue that, for logistical considerations, it

[80] *Shiji*, 40.1735. See also Chapter 1.

was most likely composed of Jiangnan conscripts from the eastern part of Qianzhong Commandery that remained unoccupied by the Qin.[81]

Immediately on the reconquest, the region to the west of Dongting was reorganized into a new commandery, which, according to the *Shiji*, was specifically established "to keep the Qin at bay" (*ju Qin* 距秦).[82] The name of the commandery does not appear in transmitted sources. Most scholars agree that rather than reinstalling Qianzhong Commandery, the western part of which fell into the hands of Qin, the new commandery was named Dongting 洞庭郡.[83] Probably at the same time, another commandery, Cangwu 蒼梧, was founded in the upper reaches of the Xiang River in what is now southern Hunan. As Dongting Commandery, it eventually became part of the Qin administration to the south of the Yangzi. Some scholars believe that Cangwu Commandery was founded to control the local Viet (*yue* 越) populations.[84] Throughout Chinese imperial history, tribal militias played important role in the military campaigns in the south, so the foundation of the commandery may have pursued the goal of recruiting these troops for resistance to Qin.[85]

Demarcated boundaries and regular territorial administration are considered the key markers of "territorial states" that were taking shape across the Zhou world during the Warring

[81] Gao Chongwen, "Cong Liye gucheng, Danfeng gucheng de kaogu faxian tan Qin Chu guanxi," 65.

[82] *Shiji*, 40.1735.

[83] See, for example, Xu Shaohua and Li Haiyong, "Cong chutu wenxian xi Chu Qin Dongting, Qianzhong, Cangwu zhu junxian," 63-65; Zhong Wei 鐘煒 and Yan Changgui 晏昌貴, "Chu Qin Dongting Cangwu ji yuanliu yanbian" 楚秦洞庭蒼梧及源流演變 [Dongting and Cangwu commanderies of Chu and Qin, their origins and transformation], *Jianghan kaogu* 2 (2008): 92-100.

[84] Xu Shaohua and Li Haiyong, "Cong chutu wenxian xi Chu Qin Dongting, Qianzhong, Cangwu zhu junxian," 66-68.

[85] For the importance of tribal militias in maintaining public order and suppressing rebellions on the southern borderlands of the empire during the late imperial era, see Leo Shin, *The Making of the Chinese State*.

States period.[86] Yet it is worth remembering that neither the Chu nor its successors in the region enjoyed control over an uninterrupted territorial continuum. As we will see in the following chapters, state presence was restricted to the key areas of economic production, transportation routes, and military strongholds, despite the ideological claims to pervasive control over people and land and continuous attempts to extend its administration further into the hinterland.

In this regard, the Chu expansion in Jiangnan can also be viewed as part of their participation in the economic networks within and beyond the Middle Yangzi interaction zone. During the Warring States period, Chu was engaging in luxury trade with the regions to the south of the Nanling 南嶺 Mountains that separated the Yangzi from the Pearl River system in what is now Guangdong and Guangxi Provinces. Chu imports from the subtropical zone included ivory, rhinoceros products, pearls, silver, copper, fruit, tortoise shells, scented woods, and medicinal products. Trade routes probably extended as far as Hainan Island and northern Vietnam. The Chu colonies in the upper reaches of the Xiang River were likely instrumental in this trade.[87]

The establishment of Cangwu Commandery in southern Hunan could have pursued, along with other goals, overviewing, taxing, and probably directing the burgeoning trade across the Nanling Mountains. Scholars have long paid attention to the administered nature of long-distance trade in the state of Chu, especially insofar as luxuries, precious metals, and strategic commodities were concerned. The bronze tallies dated to the late fourth century BCE and granted by the King of Chu to a certain Qi, the Lord of E 鄂君啟, authorize the latter's caravans to conduct trade along

[86] See, for example, Li Feng, *Early China*, 183-186.

[87] For a survey of Chu trade with Lingnan 嶺南 ("Regions to the south of Nanling Mountains") and archaeological evidence for the Chu trading settlements in the upper Xiang River valley, see Heather Peters, "Towns and Trade: Cultural Diversity and Chu Daily Life," in *Defining Chu*, 99-117.

the prescribed routes that some scholars believe to be defined by the goals of supplying military garrisons, developing the local economy at the military frontier, and integrating the newly conquered territories into the Chu economic sphere.[88] Considering its complex constitution and relatively weak administrative centralization (especially when compared to the state of Qin), control over the key trade routes and regulation of trade flows may have been important instruments of holding together the Chu polity.[89]

As the Xiang River connected the mid-Yangzi valley with the coastal zone in the south, so the Yuan River served as a conduit to the Yunnan-Guizhou Plateau 雲貴高原. With its rich supplies of tin and lead, Yunnan was an important participant of the Bronze Age exchange networks already in the second millennium BCE.[90] Insofar as the Middle Yangzi was a major center of bronze metallurgy, much of the Yunnan tin was probably either processed there or reexported further north. The region was also important as an intermediary in the long-distance

[88] Funakoshi Akio 船越昭生, "Gaku Kun Kei setsu ni tsuite" 鄂君啓節について [On the tallies of Qi, the Lord of E], *Tōhō gakuhō* 43 (1972): 55-95; Chen Wei, "E-jun Qi jie yu Chu guo mianshui wenti" 鄂君啟節與楚國免稅問題 [Tallies of Qi, the Lord of E, and the problem of tax exemption in the state of Chu], *Jianghan kaogu* 3 (1989): 52-58; Falkenhausen, "The E Jun Qi Metal Tallies: Inscribed Texts and Ritual Contexts," in *Text and Ritual in Early China*, ed. Martin Kern (Seattle and London: University of Washington Press, 2005), 79-123.

[89] I owe this observation to Prof. Guo Jue, private conversation, March 20, 2019.

[90] For a discussion of the isotope data in Shang and Western Zhou bronzes suggesting north-eastern Yunnan was likely one of the important sources of metal ores, particularly the lead, see, for example, Ruiliang Liu, Peter Bray, A.M. Pollard, and Peter Hommel, "Chemical Analysis of Ancient Chinese Copper-Based Objects: Past, Present and Future," *Archaeological Research in Asia* 3 (2015): 1-8; Zhengyao Jin, Ruiliang Liu, Jessica Rawson, and A. Mark Pollard, "Revising Lead Isotope Data in Shang and Western Zhou Bronzes," *Antiquity* 91 (2017): 1574-1587; Ruiliang Liu, Jessica Rawson, and A. Mark Pollard, "Beyond Ritual Bronzes: Identifying Multiple Sources of Highly Radiogenic Lead Across Chinese History," *Scientific Reports* 8 (2018): 1-7. Scholars have long recognized that metals were coming from various sources, and the argument was made that the metals used by bronze foundries in northern China were mostly supplied from less distant sources. For a discussion, see, for example, Jin Zhengyao 金正耀, *Zhongguo yan tongweisu kaogu* 中國鉛同位素考古 [*Lead isotope archaeology in China*] (Hefei: Zhongguo kexue jishu daxue, 2008), 292-302.

exchange network involving Sichuan, the Tibetan Plateau, and South-East Asia, in which resources such as cowry shells, ivory, salt, precious stones, silver, gold, horses, and slaves were circulated.[91]

In the middle of the Warring States period, the state of Chu moved in to take control over this route as well as the sources of tin and lead in Yunnan. King Wei 威王 of Chu (339–329 BCE) dispatched his General Zhuang Qiao 莊蹻 to conquer the alluvial plain around Lake Dian 滇池 (also known as Kunming Lake 昆明湖) in present-day Kunming Municipality 昆明市 in central Yunnan Province, which was one of the most important agricultural centers in the region.[92] While the precise route of Zhuang Qiao's campaign is unclear, some scholars suggested he advanced up the Yuan River, which provides a convenient natural access to the Yunnan-Guizhou Plateau.[93] According to the *Shiji*, the Chu force initially managed to set up a base near the Dian Lake, but eventually was cut off from its homeland as the result of the Qin invasion of Chu. Zhuang Qiao and his descendants ended up establishing themselves as independent rulers of the Dian Kingdom.[94]

1.3. Concluding remarks

The Middle Yangzi interaction zone started to take shape in the fourth and third millennia BCE as an arena of economic and cultural connectivity among the region's burgeoning urban societies. Some thousand years later, it witnessed early engagements between indigenous polities

[91] Alice Yao, *The Ancient Highlands of Southwest China: From the Bronze Age to the Han Empire* (Oxford: Oxford University Press, 2016), 7.

[92] The account about this campaign is preserved in the *Shiji* "Narrative on the south-western barbarians" (Xinan yi liezhuan 西南夷列傳), see *Shiji*, 116.2993.

[93] Cao Chuansong, "Xiang xibei Chu cheng diaocha yu tantao," 188.

[94] *Shiji*, 116.2993.

and the northern royal states. During these millennia, configurations of economic, political, and cultural connectivity evolved with climate change, relocation of population centers, extraneous influences, and introduction of new resources and technologies.[95]

By the Warring States period, the interaction zone transformed into a state with territorial administration that extracted labor and resources from the region's population, organized military defense, and taxed trade. This state had a more or less well-defined boundaries marked by topographic features (such as the Nanling Mountains in the south and the Wuling Mountains in the west) and borderland fortifications. As other "warring states", the state of Chu introduced a number of important administrative and military institutions, including the units of territorial administration, and it possessed much greater capacity for waging war and forcibly maintaining dominance over the conquered lands and populace than any of its predecessors in the region. Yet the territorial state was not purely an outcome of conquest and administrative innovation. It exploited the networks of economic exchange and capitalized on the traditions of political integration that existed in the Middle Yangzi since the time of the Shijiahe walled towns.

Once the political consolidation of the region was completed, its resources could be deployed to push its boundaries outward. During the late Warring States period, the state of Chu expanded into southern Hunan that heretofore did not participate in the interaction zone, and into the Yunnan-Guizhou Plateau that lay outside the physiographic region of the Middle Yangzi. The precise rationales for this expansion remain unclear, but it likely had to do with the Chu rulers'

[95] One enduring pattern was the division of the region into the northern and southern parts respectively to the north and to the south of the Yangzi River. This division is manifest, for example, in the clustering of late Neolithic walled towns (see Map 2.2) or in the several decades of contestation over the control of the Middle Yangzi between Qin and Chu in the third century BCE. Yet, in a longer run, this division never seriously challenged the region's integrity wherein major rivers served rather than precluded connectivity.

claim to control over strategically important resources (such as tin) and the routes along which restricted goods (ivory, pearls, precious stones, etc.) were circulated.

The long-established logistical connectivity and economic and political ties within the region also meant that every power arriving on the Middle Yangzi sought to take over the region in its entirety lest its dominance was contested by other powers. On surviving the Qin invasion of 280–277 BCE, the Chu state to the south of the Yangzi restored the western frontier along the physiographic border of the region by repulsing the Qin to the west of the Wuling Mountains. However, the enduring Qin presence to the north of the Yangzi meant that the conflict was frozen until the final round of confrontation in 226–222 BCE, in course of which the Qin captured all Chu possessions in Jiangnan, including the remote frontier outposts such as the fortress at Liye. Rapidity of the Qin conquests in Hunan is reflective of the region's internal connectivity. The new masters also inherited the expansionist agenda of their predecessors in the south and south-west.

2. The Qin Empire in the South

The less than fifteen years of the Qin imperial rule were the time of unprecedented experiments with the forms of territorial administration. The well-known part of this story is that on the completion of conquests in 221 BCE the entire empire was divided into thirty-six commanderies (*jun* 郡), each of which consisted of counties (*xian* 縣).[96] While commanderies existed in at least some of the "warring states," they were but one of the institutions of territorial administration along with hereditary fiefs; counties subordinate directly to the center; and major cities that in some states possessed a considerable degree of autonomy vis-à-vis the central

[96] For the establishment of thirty-six commanderies in 221 BCE, see *Shiji*, 6.239-240. The list of commanderies is provided in the 5th century *Collected commentaries* (*Jijie* 集解) to the *Shiji* by Pei Yin 裴駰.

government, including the right to cast their own coin.[97] Imposition of administrative uniformity throughout the empire was a novelty.

What transmitted sources do not adequately record are the enormous adjustments in the territorial administration of the empire just a few years after its foundation. In particular, the recently excavated Qin documents contain the names of commanderies that were not mentioned in official histories. While some scholars doubted the accuracy of the *Shiji* account, others attempted reconstructions of the historical transformation of the Qin commandery system. These suggest considerable reshuffling of commandery borders, abolition of entire commanderies, and the establishment of new ones not only in 221 BCE but also at later dates.[98] All such reconstructions are provisional and, in many details, exposed to revision with the publication of new excavated documents.[99]

One of the main reasons for the readjustment of territorial administration units throughout the Qin imperial period was that the frontiers of the empire were never fixed. It continued to expand almost until the outbreak of the rebellion that terminated Qin rule. This expansion was by no means an uninterrupted sequence of military victories. Both transmitted and excavated records indicate

[97] The Chu commanderies have been briefly discussed in the previous section. For the commanderies in the state of Wei 魏, see Tsuchiguchi, *Senshin jidai no ryōiki shihai*, 148-156. For the fiefs, see Zheng Wei, *Chu guo fengjun yanjiu*, 195-246 (for the state of Chu); and, more generally, Yang Kuan, *Zhanguo shi*, 259-269. For the territorial administration in the Warring States Qi and Yan, which was centered on the major urban centers (*du* 都) and did not include commanderies, see Qian Linshu 錢林書, "Zhanguo Qi wudu kao" 戰國齊五都考 [A study of the five metropoles of Qi during the Warring States period], *Lishi dili* 歷史地理 5 (1987): 115-118; and, more recently, You Yifei, "Zhanguo zhi Han chu de junzhi biange," Chapter 1, Section 4.

[98] For one of the most thorough reconstruction of changes in the Qin commandery system and an analysis of the historical background of these transformations, see Xin Deyong, "Qin Shihuang sanshiliu jun xinkao" 秦始皇三十六郡新考 [A new study of the thirty-six commanderies of the First Emperor], in Xin Deyong, *Qin Han zhengqu yu bianjie dili yanjiu* 秦漢政區與邊界地理研究 [*Studies in the administrative division and frontier geography of the Qin and Han empires*] (Beijing: Zhonghua, 2009), 3-92.

[99] Xin Deyong's study provides an example. The author could only make use of a tiny portion of the Qin administrative documents from Liye, the first volume of which was published in 2012. This publication makes clear that some of the commandery foundation dates reconstructed by Xin are incorrect, as will be discussed later in this section.

that in the south the imperial forces pushing the frontier further and further into the tropical zone encountered at least one major setback along with an unknown number of smaller ones.

This territorial fluidity was largely determined by the breakneck pace of the Qin conquests during the last decade of the Warring States. Neither a pervasive administration of newly conquered lands and populations nor the Qin model of intensive fiscal extraction could be deployed within such a short period of time. As the result, the empire was effectively divided into "old" and "new" territories. The latter term officially applied to the lands that came under the Qin control in course of the final campaign of unification. While the term "new lands" (*xin di* 新地) has been known since the publication in 1976 of the two late-Warring States private letters from the tomb no. 4 at Shuihudi, Hubei Province, its actual meaning and implications only became clear with the more recent documentary discoveries, particularly the legal texts from the Yuelu Academy collection and the Qianling administrative archive.[100] The characteristics of the Qin administration in the "new territories" goes a long way in explaining the fate of the empire as well as changes in the imperial territoriality after the collapse of Qin.

The newly published excavated documents shed light not only on the organization of the Qin Empire in the south but also on the enormous challenges it faced in establishing control over local populations and resources.[101] Far from exerting continuous, uninterrupted control over the

[100] For the two letters by the Qin soldiers, one of which is dated to 223 BCE, see *Qin jiandu heji*, vol. 2, 589-603. For an English translation of one of these letters, see Edward Shaughnessy, "Military Histories of Early China: A Review Article," *Early China* 21 (1996): 159-182. For a recent annotated translation and study of both letters, see Enno Giele, "Private Letter Manuscripts from Early Imperial China," in Antje Richter, ed., *A History of Chinese Letters and Epistolary Culture* (Leiden and Boston: Brill, 2015), 403-474.

[101] Some challenges faced by the government of Qianling County were recently addressed in Yates, "Challenges of Administering the Qin Empire: Evidence from Excavated and Newly Recovered Texts," lecture given at Heidelberg University, July 20, 2018.

territory, the Qin state in the south was a patchwork of fortified garrisons, agricultural colonies, and resource-extracting facilities surrounded by poorly charted and often hostile environment.

2.1. Lands old and new: Qin imperial territoriality

Segregation between the "old" and "new" territories

The completion of the Qin conquest of the "warring states" in 221 BCE did not culminate in the formation of continuous, undifferentiated administrative space, as implied by the *Shiji* account of administrative unification. Quite the contrary, a strict segregation was imposed between the "old" lands of the Qin and those occupied during the final campaigns of the Warring States era. The cordon separating these two distinct spaces was established along the line of the old frontier (*gu jiao* 故徼). The government considered counties that constituted this cordon as a militarized belt with a special legal regime. Local authorities had to maintain permanent vigilance and be prepared to repulse attacks from outside of the old frontier.

The military preparations in the "counties and marches on the old frontier" (*gu jiao xiandao* 故徼縣道) are meticulously outlined in the imperial Qin "Statutes on emergency levies" (*ben jing lü* 奔敬（警）律) from the Yuelu Academy collection:[102]

> • 奔敬（警）律曰：先鄰黔首當奔敬（警）者，為五寸符，人一，右在【縣官】，左在黔首，黔首佩置節（即）奔敬（警）。諸挾符者皆奔敬（敬）故徼外盜徹所，合符焉，以譔（選）伍之。黔首老弱瘁（癰）病，不可令奔敬（警）者，牒書署其故，勿予符。其故徼縣道各令，令守城邑害所，豫先分善署之，財（裁）為置將吏而皆令先智（知）所主；節（即）奔敬（警），各亟走，所主將吏善辦治之。老弱瘁（癰）病不足以守，豫遣重卒期足以益守，令先智（知）所主。

[102] *Yuelu shuyuan cang Qin jian*, vol. 4, 126-127, slips 177-180.

• The "Statutes on emergency levies" state: At the beginning when the commoners are to be urgently levied, prepare the tallies five *cun* (ca. 11.5cm) long, one for each person. The right part [of each tally is kept by] the county authorities, the left part is kept by a commoner [who is levied for service] who should attach it as a pendant as he proceeds on emergency levy. All of them who are holding tallies should urgently proceed to the offices that are managing [the resistance] to the bandits [invading] from outside the old frontier, where the [two parts of each] tally are put together, so that [arriving individuals can be] sorted out and organized into squads of five.[103] For those commoners who are old, sick, or disabled and [therefore] cannot be ordered on an emergency levy, the reasons [of their exemption] should be listed on a wooden tablet, and they should not be given tallies. In the counties and marches along the old frontier, each magistrate should order to defend the vulnerable places of walled towns and [other] settlements. They should in advance decide on the optimal deployment [of troops] and identify the officers who would command each unit. Order [each individual to be mobilized] to know who their superiors are from the beginning. When it comes to an emergency levy, each should proceed [to his section], and officers in charge should manage and deploy them in the optimal way. In case there is insufficient number of old, weak, disabled, and sick to guard [the walls], then in advance [deploy] the excessive soldiers to join the defense.[104] Order them to know their superiors from the beginning.

The old frontier was the region that had to be prepared for invasion at any time and where even old and disabled had to contribute to the defense. It was also the destination of urgently

[103] Here, the tallies are used to identify individuals mobilized for urgent military service and directed from hinterland to the frontier (in this case, the "old" frontier) where they have to present their parts of the tallies. The other parts had to be transferred by the counties where mobilization was taking place to the counties where troops were to be deployed. This process is minutely outlined in the Qin ordinances from the Yuelu Academy collection that are forthcoming in the sixth volume of *Yuelu shuyuan cang Qin jian* and were partly presented by Chen Songchang 陳松長 at the workshop "Non-literary manuscripts from Qin and Early Han times," Hamburg University, 11-12 September, 2018. For a recent discussion, see also Chen Songchang, "Yuelu Qin jian zhong de "wei fu guan" yu "zhi suo guan" kaolun" 岳麓秦簡中的"為符官"與"致所官"考論 [A discussion of the "tally-issuing offices" and "material-issuing offices" in the Qin documents from the Yuelu Academy collection], in Zhongguo shehui kexueyuan jianbo yanjiu zhongxin 中國社會科學院簡帛研究中心 et al., eds., *Di si jie jianboxue guoji xueshu yantaohui huiyi lunwenji* 第四屆簡帛學國際學術研討會會議論文集 [*The proceedings of the fourth international conference on the study of bamboo and silk manuscripts*] (Chongqing, 2018), 254-259.

[104] The text clearly refers to the mobilization process in the "old frontier" counties attacked from outside the "old frontier." In the Qin and Western Han empires, the adult males of enlistment age (which in the Qin and early Western Han period varied depending on the social rank of an individual) (*zu* 卒) were conscripted to military service in rotations (*geng* 更), the number of which per year could vary. Each shift consisted of the same number of men. The Western Han documents excavated from tomb no. 1 at Songbai 松柏, Jingzhou Municipality, Hubei Province, record the category of "excessive" (*yu* 餘) servicemen, the remainder after the division of the total number of servicemen available in an administrative unit by the number of shifts applied in this unit. The Qin statute under consideration is likely referring to this group. For a discussion of Songbai materials, see Yang Zhenhong, "Songbai Xi Han mu buji kaoshi" 松柏西漢墓簿籍考釋 [An examination of registers from the Western Han tomb at Songbai], in *Chutu jiandu yu Qin Han shehui (xubian)*, 223-242.

mobilized levies from the interior of the "old" Qin territories who were given special tallies to allow their identification on arrival at the place of service. The enemy is identified as "bandits" (*dao* 盜) attacking from outside of the old frontier. The term "bandits" was applied in the official Qin and Han documents to any organized anti-government groups in excess of five individuals, regardless of its purpose.[105] It often indicated rebel forces.[106] Enemy forces often included non-*huaxia* "barbarians" (*manyi* 蠻夷). The Qin law also made provisions against spies (*jianzhe* 間者) from beyond the "old frontier" staging revolts at fortified towns and other settlements in the "old" Qin territories and stipulated rewards for denouncing or arresting these individuals.[107] That this legislation was enacted in the form of ordinances necessitated by the lack of prior statute regulation concerning official rewards for arresting such spies[108] suggests that the vast and barely controlled "new territories" that presented serious military threats in spite of having been formally incorporated into the empire were a relatively new reality.

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[105] For the definition of a gang (*qun dao* 群盜) as a group in excess of five individuals in the early Western Han "Statute on robbery" (*dao lü* 盜律), see *Ernian lüling yu Zouyanshu*, 114, slip 62; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 464-465. For a discussion, see Jiang Feifei, "*Ernian lüling. Dao lü* "jiao xiang yi wei li, zi yi wei li yi dao" kaoshi" 《二年律令。盜律》 "橋（矯）相以為吏、自以爲吏以盜" 考釋 [An interpretation of the article in the "Statute on robbery" in the "Statutes and ordinances of the second year" concerning "those who arrogantly appoint each other officials and proclaim themselves officials in order to rob"], in Bu Xianqun and Yang Zhenhong, eds., *Jianbo yanjiu* 2007 (Guilin: Guangxi shifan daxue, 2010), 76-84.

[106] During the massive anti-Qin rebellion following the death of the First Emperor, the Qin officials were referring to the rebel armies as either "bandits" (*dao*) or "gang robbers" (*qun dao* 群盜), see *Shiji*, 6.269-270. Similarly, the authorities of the Qin commandery of Cangwu Commandery called the participants of what appears to be a serious uprising against the Qin "gang robbers" or "rebellious gang robbers" (*fan qun dao* 反群盜), see *Ernian lüling yu Zouyanshu*, 363-370, slips 124-161; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1332-1358.

[107] *Yuelu shuyuan cang Qin jian*, vol. 5, 124-128, slips 170-182.

[108] "For those arresting spies arriving from the barbarians outside the old fortified frontier of the marches, there is no statute [regulation concerning] the rewards. [Therefore] now an ordinance is issued" 捕道故塞徼外蠻夷來為間，賞毋律。今為令, see *Yuelu shuyuan cang Qin jian*, vol. 5, 124, slip 170.

The special legal regime applied along the old Qin frontier restricted population mobility in comparison to the interior regions. The statute "On the servicemen [subordinate to] the County Commandant" (*wei zu lü* 尉卒律) from the Yuelu Academy collection prescribes all subjects willing to travel outside their county of residence to apply for permission from the County Commandant (*wei* 尉), an official in charge of mobilizing and commanding the local military forces. Unauthorized travel for periods longer than five days were fined one suit of armor (*jia* 甲), equivalent to 1,344 cash, for the residents of the counties on the old frontier, but only one shield (*dun* 盾), equivalent to 384 cash, for the residents of the interior counties.[109] The stricter punishment applied in the frontier counties corresponded to the greater military threat and government's concern about the availability of levies for emergency mobilization.

Anxiety about incursions from outside the "old frontier" pervades the imperial Qin statutes. Reports about the activities of "bandits from outside the old frontier" was treated as a priority matter that warranted the use of the post relay system (*you* 郵), the most rapid form of official correspondence.[110] They were singled out as the military adversary in the statute "On the establishment of officials" (*Zhi li lü* 置吏律) that penalized cowardly behavior by the officers on the battlefield.[111] The old frontier was a frequently mentioned service destination for frontier conscripts (*shu* 戍), suggesting that large troop contingents were stationed there.[112] Special provisions for rewarding convicts who arrested enemy spies point at the substantial presence of

[109] *Yuelu shuyuan cang Qin jian*, vol. 4, 111-112, slips 132-134.

[110] *Yuelu shuyuan cang Qin jian*, vol. 4, 133, slip 197.

[111] *Yuelu shuyuan cang Qin jian*, vol. 4, 139, slip 215.

[112] *Yuelu shuyuan cang Qin jian*, vol. 4, 159, slips 274-275; 191-192, slips 292-293; 220, slips 377-378.

convict laborers at the "old frontier."[113] As we will see in brief, they were also important in the state program of populating the "new territories."

Importantly, the term "old frontier" occurs only in texts from the imperial Qin period (221–207 BCE). It is not attested in the legal texts excavated at Shuihudi, which are dated to the Warring States period. This suggests that the "old frontier" and the "new territories" were the result of the final round of campaigns in 230–221 BCE. The former most likely coincided with the Qin frontiers on the eve of the conquest. The nomenclature list from Liye explains that the term indicates unfortified sections of the frontier, while the fortified ones were called "old forts" (*gu sai* 故塞).[114]

That the "new territories" (*xin di*) were unmistakably associated with danger not only by the Qin government but also by the ordinary subjects is vividly expressed in the above-mentioned letters by the Qin servicemen to their families: "[I] have heard that among the cities of the new territories there are many that are empty and not filled [with people]. Moreover, they are letting those among the old Qin subjects who have come into conflict with the law populate [these towns (?)]… Bandits have entered the new territories. Zhong, would that you are not right now traveling to the new territories. This is very important!"[115]

This letter was written at the time when the Qin armies were about to annihilate the state of Chu and were probably already advancing to the south of the Middle Yangzi.[116] Its author was most likely a Qin serviceman drafted from Nan Commandery, which by that time had been part of the Qin state for more than fifty years and was therefore considered an "old territory." In spite of

[113] *Yuelu shuyuan cang Qin jian*, vol. 5, 126-127, slips 176-179.

[114] *Liye Qin jiandu*, 157, tablet 8-461.

[115] *Qin jiandu heji*, vol. 2, 599; translation follows Giele, "Private Letter Manuscripts," 463, with some changes.

[116] Another letter excavated from the same tomb is dated April 6, 223 BCE. See *Qin jiandu heji*, vol. 2, 592; translation follows Giele, "Private Letter Manuscripts," 459, n. 118.

its conquest of the Chu lands, the Qin was clearly failing to control the local population that abandoned its settlements en masse, forcing the Qin "fill in" (*shi* 實) these lands with "old Qin subjects" (*gu min* 故民) who committed some offences against the law.[117] As discussed in the next chapter, these could be criminals sentenced to penal labor but also individuals working off their fines and debts.

Appointing officials to the "new territories"

Not only settlers but also officials who staffed the Qin administration in the "new territories" were often appointed from among those guilty of misdemeanors.[118] Service there was treated as a form of punishment similar to unfree labor. A number of ordinances from the Yuelu Academy collection deal with such "officials in the new territories" (*xin di li* 新地吏):[119]

> 今南郡司馬慶故為冤句令，詐課，當廢官，令以故秩為新地吏四歲而勿廢，請論慶。制書曰：「請當廢而為新地吏勿廢者，及非廢。已後此等勿言。」● 廿六

[117] Alternatively, *gu min* can be interpreted as freemen who were enslaved or voluntarily forfeited their freedom during famine. This interpretation is adopted in Giele's translation. However, in the present case, the broadly attested meaning of *gu min* as the population of "old" lands as opposed to that of the newly conquered territories seems preferable. For a discussion, see Lau and Lüdke, *Exemplarische Rechtsfälle*, 148, n. 792.

[118] For a recent discussion of transfer to the "new territories" as a kind of penal labor for the Qin officials, see, for example, Zhu Jincheng 朱錦程, "Qin dui xin zhengfu di de teshu tongzhi zhengce – yi "xin di li" de xuanyong wei li" 秦對新征服地的特殊統治政策—以"新地吏"的選用為例 [Special governmental policies toward the newly conquered lands under the Qin: an example of the appointment of "officials at the new territories"], *Hunan shifan daxue shehui kexue xuebao* 湖南師範大學社會科學學報 2 (2017): 150-156.

[119] *Yuelu shuyuan cang Qin jian*, vol. 5, 56-57, slips 53-55.

> Now [a certain] Qing, a Lieutenant Commander of the Nan Commandery[120], has previously served as the magistrate of Yuanju [County],[121] falsified evaluation [documents], and is warranted to be dismissed from service. Order that he be made an official in the new territories for four years with the same salary grade [as he was previously holding] instead of being dismissed. [We] request that Qing be sentenced accordingly. The imperial decree states: "When it is requested that those [officials] who warrant being dismissed are appointed as the officials in the new territories and are not dismissed, they are not to be dismissed. In future, such [issues] should not be further reported." • [Number] twenty-six.

A fragment of another ordinance prescribed the punishment of two year-long service as "officials in the new territories" for low-ranked local officials guilty of evading labor corvée they were obliged to perform.[122] State functionaries could also end up serving in the new territories when they were not guilty of any offence yet their performance was considered mediocre by their superiors. A document from the Qianling county archive provide an example of one such derailed official career[123]:

> 廿六年十二月癸丑朔庚申，遷陵守祿敢言之：沮守瘳言：課廿四年畜息子得錢殿。沮守周主。為新地吏，令縣論言史（事）。• 問之，周不在遷陵。敢言之。
> • 以荊山道丞印行。（正）
> 丙寅水下三刻，啓陵乘城卒秭歸口里士五順行旁。壬手。（背）
>
> *Front side*

[120] *Sima* 司馬 was a commandery-level military officer appointed directly by the central government, who assisted senior commandery officials such as the Governor (*jun shou* 郡守) and Commandant (*jun wei* 郡尉). See Wang Wei 王偉, *Qin xiyin fengni zhiguan dili yanjiu* 秦璽印封泥職官地理研究 [*A geographic study on the offices mentioned in the Qin seal imprints*] (Beijing: Zhongguo shehui kexue, 2014), 264-265.

[121] During the Western Han, Yuanju County belonged to the regional princedom of Dingtao 定陶國 in what is now south-western Shandong Province. See *Zhongguo lishi dituji*, vol. 2, 19-20. The ordinance under consideration suggests this county already existed in the Qin Empire when it should have belonged to the Dong ("Eastern") Commandery 東郡.

[122] *Yuelu shuyuan cang Qin jian*, vol. 5, 186, slips 267-268.

[123] *Liye Qin jiandu*, vol. 1, 343-344, tablet 8-1516.

Twenty-sixth year [of King Zheng, i.e. the First Emperor], in the twelfth month, *gui-chou* being the first day of the month, on the day *geng-shen* (January 5, 221 BCE). Lu, the provisional magistrate of Qianling County, dares to report the following: Liao, the provisional magistrate of Ju County,[124] reports: "[Our county was] the worst performer at the evaluation of cash earnings [for the sale of] livestock offspring for the twenty-fourth year (223 BCE). Zhou, the provisional magistrate of Ju County, was in charge for that, so he was made an official in the new territories. [Your county] is ordered to pronounce a judgement on this matter." • We inquired, Zhou is not in Qianling. Dare to report this.
• At the delivery [this document] was sealed with the seal of the vice-magistrate of Jingshan March.[125]

Back side
On the day *bing-yin* (January 11, 221 BCE), at the third hour, dispatched to the neighboring [county][126] with Shun, the wall-guarding [soldier] in Qiling District, of commoner [rank], from the … village, Zigui County.[127]
Drafted by Ren.

Finally, a special series of ordinances "On the banishment of officials" (*Qian li ling* 遷吏令) also touched upon the conditions for the appointment to the "new territories". Officials who were unable to attend their office for more than three months in the course of one year due to illness were to be dismissed and, in the event of recovery, transferred to the "new territories." The

[124] In the Western Han times, the Ju 沮 County was located in Wudu 武都 Commandery to the north-west of the modern city of Hanzhong 漢中市 in the upper Han River basin. See *Zhongguo lishi dituji*, vol. 2, 29-30. In the Qin Empire, this area was part of the Hanzhong Commandery, which belonged to the "old" Qin lands.

[125] The location of this county is unknown. In the Western Han Empire, a place named Jingshan 荊山 was located in one of the three metropolitan circuits, some 70km to the east of the capital Chang'an. It probably belonged to the Linjin 臨晉 County. See *Zhongguo lishi dituji*, vol. 2, 15-16. It is very unlikely that this is the same place as mentioned in the Liye document.

[126] For the interpretation of the expression *xing pang* 行旁 as referring to the neighboring county (*pang xian* 旁縣), see *Liye Qin jiandu*, 55-57, tablet 8-76+8-166+8-485, n. 18. In the present case, Qianling authorities were probably forwarding the request of the Ju County magistrate to the neighboring counties after they established that the ex-magistrate Zhou was not stationed in Qianling. The neighboring counties would therefore be asked to confirm whether or not Zhou was serving within their jurisdiction.

[127] Zigui 秭歸 County belonged to Nan Commandery and was located to the north of the Yangzi upstream of the modern city of Yichang 宜昌市. See *Zhongguo lishi dituji*, vol. 2, 22-23.

ordinance emphasized that their service was akin to that of the fixed-term frontier service (*shu ru li* 戍如吏).[128]

Staffed with the officials deemed unfit to serve elsewhere, if not outright guilty of violating the law, the administration of the "new territories" was not considered particularly reliable by the central government that issued special ordinances to deal with the crimes committed by the "officials in the new territories."[129]

Transferring manpower to the "new territories"

For controlling the "new territories", the Qin state relied heavily on penal labor of various types, of which that of administrative functionaries was but one. Another was the military. The Qin Empire laid the foundations for the long-lasting tradition of recruiting frontier guards from among criminals sentenced to labor punishment. Already in the late Warring States Qin, frontier service (*shu* 戍) was instituted as a punishment. Legal texts from Shuihudi mention crimes punished with one or two years of service as a frontier guard.[130]

The fragments of imperial Qin ordinances from the Yuelu Academy collection record the government's attempt to systematize the transfer of criminals sentenced to frontier service from the interior of the empire to the "new territories." That the ordinance was issued in response to the

[128] *Yuelu shuyuan cang Qin jian*, vol. 5, 190, slips 276-277.

[129] For the Qin ordinance penalizing these officials for taking bribes and engaging in fraudulent commercial deals with the local populace, see *Yuelu shuyuan cang Qin jian*, vol. 5, 51-53, slips 39-44.

[130] See, for example, *Shuihudi*, 82-83, slips 11-15; Hulsewé, *Remnants*, 108-109.

petition submitted by Wang Wan 王綰, the Chancellor of Qin at the time of the imperial "unification," suggests it is dating to shortly before or after 221 BCE:[131]

> 綰請許而令郡有罪罰當戍者，泰原署四川郡；東郡、參川、潁川署江湖郡；南陽、河内署九江郡…… 0706
> 河内署九江郡；南郡、上黨□邦道當戍東故徼者，署衡山郡 0383
>
> Wan petitions that it is permitted and ordered with regard to the commanderies that have criminals who warrant [the punishment] by frontier service: that [the servicemen] from the Taiyuan [Commandery] are stationed at Sichuan Commandery; that [the servicemen] from the Dong Commandery, Sanchuan, and Yingchuan [Commanderies] are stationed in Jianghu Commandery; that [the servicemen] from the Nanyang and Henei [Commanderies] are stationed in Jiujiang Commandery… (slip 0706)
> [That the servicemen] from the Henei [Commandery] are stationed in Jiujiang Commandery; that [the servicemen] from the Nan Commandery and Shangdang [Commandery]… [and dependent] states and marches that warrant being [sentenced to] frontier service at the old frontier in the East, to be stationed in Hengshan Commandery. (slip 0383)

Most of the commanderies mentioned in this ordinance are known either from the transmitted sources or from the finds of official seal imprints. The sole exception is Jianghu 江湖 Commandery, which is otherwise unknown. Although its location remains unclear, the name, "Streams and lakes," may suggest it was situated in the middle or lower reaches of the Yangzi.[132] The donor commanderies belonged to the "old" territories that were under the Qin control before the final decade of the Warring States period. Recipient commanderies were all situated in the "new territories" (see Tables 3.1, 3.2 and Map 3.4[133] below).

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[131] This text is published in Chen Songchang, "Yuelu shuyuan cang Qin jian zhong de jun ming kaolüe" 岳麓書院藏秦簡中的郡名考略 [A study of the commandery names in the Qin documents from the Yuelu Academy collection], *Hunan daxue xuebao (shehui kexue ban)* 3 (2009): 5-10.

[132] See Chen Songchang, "Yuelu shuyuan cang Qin jian zhong de jun ming kaolüe," 9-10.

[133] The map is based on Xin Deyong, "Qin Shihuang sanshiliu jun xinkao," 87, map 3. It does not cover the commanderies founded under the Qin Empire along the northern frontier since their status is unclear. I believe it likely

Table 3.1: Origins of the frontier servicemen in the Yuelu Academy ordinances

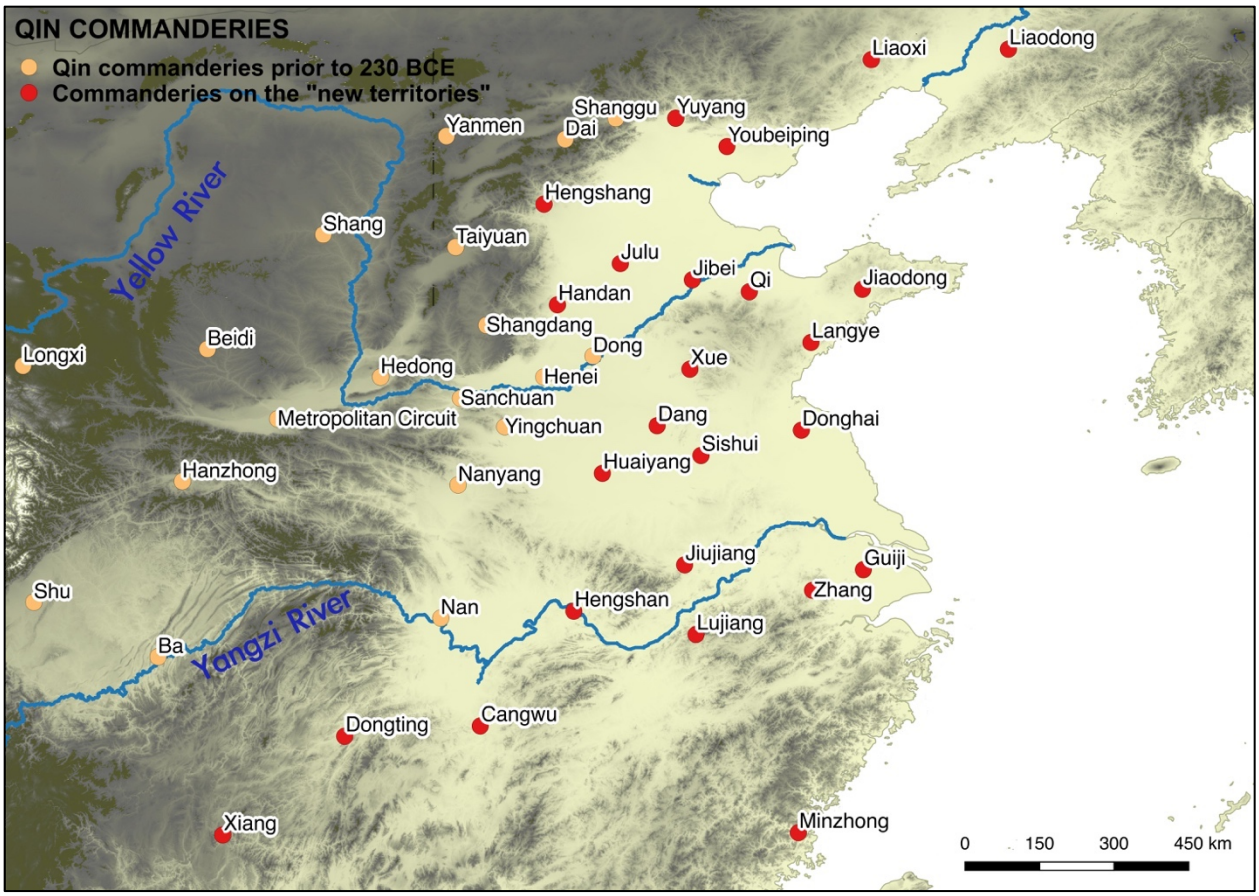
Commandery name	Foundation date[134]	Geographic location
Henei 河內	Between 290 and 266 BCE	To the east of Zhengzhou 鄭州 City in present-day Henan Province
Nan Commandery 南郡	278 BCE	To the north of Middle Yangzi in present-day Hubei Province
Nanyang 南陽	277 BCE	Nanyang Basin in the southwest of present-day Henan Province
Shangdang 上黨	Between 260 and 247 BCE	To the east of the Fen River valley in south-east of Shanxi Province
Sanchuan 參川	249 BCE	In the area of Luoyang 洛陽 City in east of Henan Province
Taiyuan 泰原	247 BCE	In the upper reaches of Fen River, Shanxi Province
Dong Commandery 東郡	242 BCE	To the north of Kaifeng 開封 City in Henan Province
Yingchuan 潁川	230 BCE	Near Xuchang 許昌 City in central Henan Province

that they were also differentiated from the "old" Qin territories, but it is unclear if this differentiation was drawn in the same way as that between the "old" and "new" territories as discussed here.

[134] The foundation dates of the Qin commanderies that appear in the *Shiji* are summarized in Tsuchiguchi, *Senshin jidai no ryōiki shihai*, 142, table 2.

Table 3.2: Service destinations of the frontier servicemen in the Yuelu Academy ordinances

Commandery name	Foundation date	Geographic location
Sichuan 四川 (Sishui 泗水)	224 BCE	Along the Suishui 睢水 and Sishui 泗水 rivers in northern Anhui Province
Jiujiang 九江	Unknown	Near Hefei 合肥 City, Anhui Province
Hengshan 衡山	Unknown	In the Dabie Mountains 大别山 area, in the eastern part of Hubei Province
Jianghu 江湖	Unknown	Unknown, probably to the south of the Middle or Lower Yangzi



Map 3.4: "New territories" in the Qin Empire

Although the foundation dates for three of the four recipient commanderies are unknown, geographic location suggests they were established in the Chu lands conquered in 224–222 BCE. Two of these commanderies, Jiujiang and Hengshan, probably also Jianghu, were located along the Yangzi to the east of the major Qin stronghold, Nan Commandery. The four recipient commanderies therefore belonged to the "new territories." The donor commanderies, on the other hand, were mainly founded before the final stage of conquest campaigns, with one possible exception of Yingchuan, which was established after the annihilation of the state of Han 韓 (230 BCE). Many of these regions, including the Nanyang Basin, the Fen River basin, the Jianghan

region, and the Yellow River valley around Sanmenxia, were subject to extensive Qin colonization starting from the middle of the Warring States period (see Chapter 2).

The documents from the Qianling county archive illustrate the work of this statute. In 214 BCE, a group of twelve frontier guards was transferred from Yangling 陽陵 County to Dongting Commandery.[135] While Dongting belonged to the "new territories," the location of Yangling and its commandery affiliation remain debated. Some scholars argue that it was situated in the Qin heartland of Guanzhong, while others believe it was originally one of the Chu fiefs to the north of Huai River and after the Qin conquest was converted into a county.[136] If the former was the case, Dongting would have been a service destination for the residents of the core Qin region in the Wei River basin, which is not mentioned in the Yuelu Academy statute.

Consolidation of manpower sources for the "new territories" in the wake of the imperial unification likely pursued the goal of improving the efficiency of such transfers by establishing stable routes between specific locations (see Chapter 5 for a more detailed discussion) and facilitating adaptation to new conditions for the arriving servicemen who would find themselves surrounded by the people from the same area. Qianling archive documents suggest the same mechanism was applied to the rotating frontier servicemen (*geng zu* 更戍) who were also recruited from the same area for service in Dongting Commandery.[137]

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[135] *Liye Qin jiandu*, vol. 2, 1-19, tablets 9-1–9-12.

[136] For a discussion of the geographic location of Yangling, see, for example, Ma Yi, "Qin jian suojian ziqian yu shuqian – yi Liye Qin jian 'Yangling zu' wenshu wei zhongxin" 秦簡所見貲錢與贖錢–以里耶秦簡"陽陵卒"文書爲中心 [Fines and redemption fees in the Qin documents, based on the documents from the Liye archive related to the "Yangling servicemen"], *Jianbo* 8 (2013): 195-213.

[137] See You Yifei, "Liye Qin jian suojian de Dongting jun – Zhanguo Qin Han junxian zhi ge'an yanjiu zhiyi" 里耶秦簡所見的洞庭郡—戰國秦漢郡縣制個案研究之一 [Dongting Commandery in the Liye Qin documents: A case study of the commandery and county regime in the Warring States, Qin, and Han periods], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2316, accessed November 15, 2018; Yang Xianyun 楊先雲, "Lun *Liye Qin jian (er)* yize "geng shu" cailiao" 論《里耶秦簡（貳）》一則"更

The need for regular transfers of manpower to the vast territories conquered at the end of the Warring States period reinvigorated the institutions of forced labor that by the time of imperial unification were already eroded by the mounting transaction costs of direct government operation of the labor force, on the one hand, and local governments' engagement with the markets for labor, on the other (see Chapters 2 and 4). It should be noticed that the disintegration of the forced labor system in the early Chinese empire coincided with central government's temporal retreatment from the "new territories" after the collapse of Qin.

2.2. Dynamic frontier: imperial politics in the South

The Qin administration to the south of the Yangzi was set up not only to control the conquered territories but also to contribute to further expansion to the south and south-west, which unfolded along the routes of interregional connectivity already well-known to the late Warring States merchants, officials, and generals of the state of Chu. The spatial deployment of officials, government's economic activity, and features of local society can only be properly understood within the context of the dynamic imperial frontier which Jiangnan became immediately in the wake of the Qin conquest.

The *Shiji* account of the First Emperor's reign does not mention any significant military action on the frontiers during the years after 221 BCE. Instead, it appears that the emperor was preoccupied with inspecting his realm in a series of imperial progresses and erecting stelae to

成" 材料 [A discussion of the documents on the "rotating frontier servicemen" in the second volume of *Liye Qin jian*], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=3116, accessed November 15, 2018.

report his achievements to the spirits and possibly also to publicize his regime to the subjects.[138] It is not until six years later that the empire initiated aggressive frontier politics with a massive assault on the Xiongnu in the north and invasion into the tropical zone to the south of the Nanling Mountains.[139]

This narrative is likely misleading. The frontier in the south did not stabilize after the annihilation of Chu in 222 BCE. *Huainanzi* 淮南子, a treatise compiled in the Western Han princedom of Huainan 淮南 around the 130's BCE, contains a story about the disastrous Qin campaign in the south:[140]

> 又利越之犀角、象齒、翡翠、珠璣，乃使尉屠睢發卒五十萬，為五軍，一軍塞鐔城之嶺，一軍守九疑之塞，一軍處番禺之都，一軍守南野之界，一軍結餘幹之水。三年不解甲馳弩，使臨祿無以轉餉。又以卒鑿渠而通糧道，以與越人戰，殺西嘔君譯籲宋。而越人皆入叢薄中，與禽獸處，莫肯為秦虜。相置桀駿以為將，而夜攻秦人，大破之。殺尉屠睢，伏尸流血數十萬，乃發謫戍以備之。
>
> [The First Emperor of Qin] also valued the rhinoceros horn, ivory, jade, and pearls of Yue. Thus he sent Commandant Tu Sui with five hundred thousand troops. These were made into five armies. One army fortified the mountain peak at Xincheng; one army defended the pass at Jiuyi; one army was positioned at the capital Fanyu; one army guarded the frontier at Nanye; one army encamped at the Yugang River. For three years, they did not take off their armor or unstring their crossbows. Supervisor Lu was sent to transport their provisions; he also used soldiers to dig canals and thus open the route for supplies. They fought with the people of Yue and killed Yi Xusong, the ruler of Xi'ou. But all the Yue people went into the forests and lived with the birds and beasts; none

[138] For the Qin stelae inscriptions, see Martin Kern, *The Stele Inscriptions of Ch'in Shih-huang*. On the publicity effects of the imperial progresses and stelae inscriptions, see Sanft, *Communication and Cooperation in Early China*, 77-100.

[139] *Shiji*, 6.252-254.

[140] Liu Wen 劉文, comp. and ed., *Huainan hongliu jijie* 淮南鴻烈集解 [*Collected commentaries to the Huainanzi*] (Beijing: Zhonghua, 1989), 18.1289-1290. Translation follows John Major, Sarah Queen, Andrew Meyer, and Harold Roth, transl. and ed., *The Huainanzi: A Guide to the Theory and Practice of Government in Early Han China* (New York: Columbia University Press, 2010), 744-745. For the historical background of the *Huainanzi*, see Griet Vankeerberghen, *The* Huainanzi *and Liu An's Claim to Moral Authority* (Albany: State University of New York Press, 2001), with some corrections.

> was willing to be captives of the Qin. They conferred with one another in establishing brave and outstanding [men] as commanders and attacked the Qin by night, greatly crushing them. They killed Commandant Tu Sui, [and] there were hundreds of thousands of bloody corpses. [Qin] thus sent more people sentenced to the frontier service to defend against [the Yue].

Huainanzi is not a historical narrative like the *Shiji*, so no dates are provided for the events. Geographic locations mentioned in the text are mainly at or near the Nanling Mountains, suggesting that the campaign was taking place to the south of the mountains, in the region known as Lingnan 嶺南 (South of [Nan]ling), which was home to the southern Yue tribes and one of the centers of the Yue state formation.[141]

Even considering the possible exaggeration of troop numbers in the *Huainanzi*, the Yue campaign appears to have been a major military effort, which could have hardly passed unnoticed in the *Shiji*. Historical geographer Xin Deyong 辛德勇 suggests that this campaign was in fact a continuation of the final Qin war against the Chu when an army some 600,000-strong was mobilized under the command of general Wang Jian who crushed the Chu before proceeding southward against the "many Yue tribes" (*bai yue* 百越).[142] The Yue campaign, according to Xin, involved no separate mobilization event, and in the *Shiji* was subsumed as a part of the anti-Chu war in the south.[143] Its inglorious ending may explain why the official Qin historiographers, whose work the authors of the *Shiji* were probably building upon, decided not to concentrate on further details.

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[141] For a discussion of archaeological evidence for the southern branch of the Yue people in present-day Guangdong and Guangxi Provinces of China and the northern part of Vietnam, see Erica Fox Brindley, *Ancient China and the Yue: Perceptions and Identities on the Southern Frontier, c. 400 BCE–50 CE* (Cambridge: Cambridge University Press, 2015),75-79

[142] *Shiji*, 73.2340-2341.

[143] Xin Deyong, "Qin Shihuang sanshiliu jun xinkao," 73-75.

Newly excavated manuscripts provided unexpectedly strong support for the *Huainanzi* account. A legal case dated 220–219 BCE, which was included in the early Western Han collection of doubtful cases excavated at Zhangjiashan, mentions a certain Tu Wei 徒唯, the Military Commandant (*wei* 尉) in the Qin commandery of Cangwu.[144] As discussed in the previous section, in the late Warring States Chu, Cangwu Commandery comprised the south-eastern part of the present-day Hunan Province in the upper reaches of the Xiang River and along the Nanling ridge. The boundaries of the commandery remained largely unchanged after the Qin took over the Chu south.[145] The commandant was a commandery-level official in charge of the military forces stationed at the commandery. In times of warfare, he was responsible for the leadership of military operations.[146]

Scholars have paid attention to the similarity between the names of the Cangwu Commandant in the excavated legal record, Tu Wei, and of the Qin commander in the Yue campaign mentioned in the *Huainanzi*, Tu Sui 屠睢. While the graphs of the surname in the two names, 徒 and 屠, were homophonous, the name graphs, 唯 and 睢, are so similar that the difference in the two texts can be explained by a scribal mistake.[147] Tu Wei/Sui served as the Cangwu Commandant in 220 BCE, at the time when the Qin army had just completed the conquest of Chu and was being redeployed against the Yue. If the geographic information in the *Huainanzi*

[144] For this legal case, see *Ernian lüling yu Zouyanshu*, 363-370, slips 124-161; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1332-1358.

[145] For a discussion of the territorial scope of Cangwu Commandery, see, for example, Hou Xiaorong, *Qin dai zhengqu dili*, 429-435; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1351, n. 20. See also below in this section.

[146] For a recent and thorough discussion of the functions of the Commandant, see You Yifei, "Zhanguo zhi Han chu de junzhi biange," 85-94. Note that the military commander at the county level was also called "commandant" (*wei*).

[147] For this observation, see, for example, Xin Deyong, "Qin Shihuang sanshiliu jun xinkao," 80-81; Lau and Lüdke, *Exemplarische Rechtsfälle*, 249, n. 1226; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1352, n. 22.

is to be taken seriously, Cangwu Commandery was the base for Qin operations. It is unusual, however, that the head of a provincial military was placed in command of such a huge army. Some scholars suggest that the *Huainanzi* records the name of Tu Wei/Sui because he was the top-ranked commander who perished in the campaign, while the overall command was carried out by Wang Jian, one of the best Qin generals of the age.[148] That Tu was involved in the campaign is likely, considering that his commandery lay in the immediate rear of the war theater.

The first Yue campaign of the imperial Qin can therefore be dated to between 221 and after 219 BCE. The military disaster paved way to the second attempt to conquer Lingnan in 214 BCE, which resulted in the short-lived Qin occupation of the region and the establishment of three commanderies, Guilin 桂林, Nanhai 南海, and Xiang 象.[149] While the Qin troops mainly advanced along the Xiang River, in the upper reaches of which the Ling ("Magic") Canal 靈渠 was opened to facilitate military supply by connecting the Yangzi and the Pearl River systems, one of the three southern commanderies, Xiang, was located in the eastern part of the Yunnan-Guizhou Plateau and was accessible by the Yuan River, which probably served as a supplementary route for the invasion.

One remark is due with regard to the Qin motivation in the Yue campaigns. The list of goods purportedly craved by the First Emperor sounds as a generic reference to the southern exotica, yet it more or less matches the picture of the Chu southern trade reconstructed from the textual and archaeological evidence.[150] As part of its takeover of the Middle Yangzi, the Qin was

[148] Xin Deyong, "Qin Shihuang sanshiliu jun xinkao," 74-75.

[149] *Shiji*, 6.253. For the map of these commanderies, see *Zhongguo lishi dituji*, vol. 2, 11-12.

[150] See Heather Peters, "Towns and Trade: Cultural Diversity and Chu Daily Life," 114-117.

probably also attempting to control the trade routes that were traditionally exploited by the inhabitants of the region but extended far beyond its boundaries.

Rather than being stabilized after the conquest of Chu, then pushed further south in 214 BCE, the southern frontier of Qin was an enormous and dynamic political space that expanded and contracted through much of the Qin imperial period. The entire Middle Yangzi region turned into the rear of massive military operations along the Nanling Mountains. The strong presence of military and the unfree populations that were routinely mobilized for military service and logistical support became one of the characteristic features of the regional economy, to be discussed in more detail in Chapter 4. The state control focused heavily on the transportation routes crucial for the ongoing military operations. Unceasing campaigns in the south also distracted the Qin forces from pacifying the conquered region to the south of the Middle Yangzi.

2.3. Administrative organization to the south of Middle Yangzi

As discussed in the previous section, the Qin armies advancing to the south of the Yangzi did not arrive in an administrative vacuum. In the late Warring States period, the state of Chu already introduced territorial administration throughout the present-day Hunan Province. The Qin invasion and conquest of the Chu core to the north of the river in 280–278 BCE catalyzed the consolidation of the Chu control over the region that henceforth served as bulwark against the Qin pressure from the north and from the north-west.

The commandry (*jun* 郡) was the key unit of territorial administration in the south. It is unclear whether or not some smaller administrative units such as counties (*xian* 縣) or fiefs (*fengguo* 封國) were already established in Hunan prior to the third century BCE. Both archaeological and inscriptional evidence suggest that the mass arrival of the Chu settlers and

administrative personnel in the region occurred in the late Warring States and was probably accelerated by the loss of territories to the north of the Middle Yangzi. Commanderies were administrative units initially introduced to coordinate military efforts across relatively large territories, including mobilization, production of armor and weapons, troop supply, and battlefield command.[151] That the Chu administration in the south originated as military administration was determined by the specific conditions under which this administration was taking shape.

Qin commanderies to the south of the Yangzi

The Qin conquest of the Chu territories to the south of the Middle Yangzi was completed in 222 BCE. By that time, Chu administration in the region was composed of two commanderies, Dongting and Cangwu. The former encompassed the Yuan and Li River basins in the western part of present-day Hunan province. The latter centered on the Xiang River valley in the eastern part of the province.[152] A document from the Qianling county archive dated from 213 BCE provides dates for the "foundation" of the Qin commanderies of Dongting and Cangwu. It states that Cangwu was established as a commandery (*wei jun* 為郡) nine years before, in 222 BCE. The document also mentions that Qianling County was established (*wei xian* 為縣) in the same year (the 25th year of King Zheng, the future First Emperor).[153] Qianling was part of Dongting Commandery, so its "foundation" date was most likely the same as that of the commandery itself.

[151] For a detailed discussion of the functions of the Qin commanderies in the end of the Warring States and during the imperial period, see You Yifei, "Zhanguo zhi Han chu de junzhi biange," 73-118.

[152] See, for example, Xu Shaohua and Li Haiyong, "Cong chutu wenxian xi Chu Qin Dongting, Qianzhong, Cangwu zhu junxian," 63-70.

[153] *Liye Qin jiandu*, 217-218, tablet 8-755+8-756+8-757+8-758+8-759.

Neither of these two commanderies is mentioned in the list of the thirty-six commanderies established on the completion of the Qin imperial conquest, which is preserved in the *Collected commentaries* (*jijie* 集解) to the *Shiji* composed by the fifth century CE author Pei Yin 裴駰. Instead, the list mentions two other commanderies in the same area, Changsha 長沙 and Qianzhong 黔中, which geographically corresponded to Cangwu and Dongting, respectively.[154] However, neither Changsha nor Qianzhong appear in the Qianling archival documents that otherwise mention many Qin commanderies, especially those neighboring Dongting Commandery. The list of commanderies in the Yangzi region reconstructed on the basis of the Liye records includes Ba 巴 and Shu 蜀 in Sichuan and the Three Gorges, Nan Commandery 南郡 to the north of the Middle Yangzi, Dongting and Cangwu to the south of the Middle Yangzi, Hengshan 衡山 to the north of the Yangzi and Poyang Lake 鄱陽湖, Lujiang 廬江 to the south of Poyang, and two counties that are believed to have belonged to the Zhang Commandery 鄣郡 in the west of present-day Zhejiang Province and Xiang Commandery 象郡, one of the three commanderies founded by the Qin after the conquest of Lingnan in 214 BCE (see Map 3.4).[155]

Attempts have been made to reconcile these two conflicting accounts of the Qin administrative geography by paying attention to the reshufflings of the commandery system. Xin Deyong argued for two major reform episodes under the First Emperor. According to Xin, there

[154] *Shiji*, 6.239-240, comm. 1. The original *Shiji* text limits itself to mentioning the total number of the commanderies and does not list their names. For the map based on the transmitted record and taking no account of the newly excavated data, see *Zhongguo lishi dituji*, vol. 2, 11-12.

[155] For the list of Qin commanderies mentioned in the first volume of the published Liye documents, see Yan Changgui 晏昌貴, "Liye Qin jiandu junxian zhi" 里耶秦簡牘郡縣志 [An outline of the Qin commanderies and counties appearing in the Qin documents from Liye], in Yan Changgui, *Qin jiandu dili yanjiu* 秦簡牘地理研究 [*Studies in the historical geography of the Qin documents*] (Wuhan: Wuhan daxue, 2017), 116-188; and You Yifei, "Zhanguo zhi Han chu de junzhi biange," 141-144, table 15.

were 42 commanderies at the time of the imperial unification, which were transformed into 36 commanderies in 221 BCE. Soon after the conquest of the Yue polities in Lingnan and in present-day Fujian Province, which was accompanied by the foundation of four new commanderies, the territorial administration was again revised to the total of 48 commanderies. Along with these two major reforms, an uncertain number of smaller changes included the renaming of individual commanderies and transfers of territory from one commandery to another. Among such episodes, Xin identifies the renaming of Changsha Commandery to Cangwu sometime around 220 BCE, and the foundation of the new Dongting Commandery in the south-western part of Qianzhong Commandery around the same time.[156]

Xin's reconstruction predates by several years the publication of the first volume of Liye documents that made clear that both Cangwu and Dongting commanderies existed from the very beginning of the Qin presence to the south of Middle Yangzi. The Qianling archive covers the period between 222 and 208 BCE, that is, almost the entire duration of the Qin Empire. While it is not impossible that the renaming of Cangwu Commandery as Changsha took place in the final year of the dynasty, such development is highly unlikely as by that time the Qin was already losing control over its southern territories, and the cessation of Qianling administrative records in 208 BCE probably signifies the collapse of Qin rule in the south.[157] Xin hypothesized that Cangwu Commandery was renamed back as Changsha during the short-lived revival of the Chu state under the rebel leader Xiang Yu 項羽 (d. 202 BCE) after the fall of Qin.[158] The Han would then have

[156] Xin Deyong, "Qin Shihuang sanshiliu jun xinkao," 3-92.

[157] For a discussion of the relationship between the Cangwu and Changsha commanderies and the lack of evidence for the renaming of Cangwu as Changsha under the Qin Empire, see Xu Shaohua and Li Haiyong, "Cong chutu wenxian xi Chu Qin Dongting, Qianzhong, Cangwu zhu junxian," 67-68.

[158] Xin Deyong, "Qin Shihuang sanshiliu jun xinkao," 90.

taken over this commandery, which was almost immediately granted as a princedom (*wangguo* 王國) to one of Liu Bang's supporters.

The history of Qianzhong Commandery reflects the dynamic political situation on the Qin-Chu frontier in the Three Gorges region during the late Warring States period. As already mentioned, the commandery was founded by the Chu probably in the late fourth century BCE to counter the threat from the west where the Qin had recently occupied the Sichuan Basin. The campaign of 280–278 BCE brought this commandery under Qin control, yet its eastern territories were reconquered by the Chu in 276 BCE, leading to the foundation of the Chu commandery of Dongting. Reduced to its western part, the commandery probably lasted through the rest of the Warring States period. However, this was a geographically unstable entity composed of parts of distinct regions: the Wu River basin in the west, the Qing River 清江 system in the east (present-day south-western Hubei), and probably parts of the Li and Yuan basins as its western part (see Map 3.3). Xin Deyong convincingly argued that as part of geographic optimization of territorial administration, Qianzhong Commandery was divided between the Ba, Nan, and Dongting commanderies very soon after the completion of the Qin conquests.[159] This would explain the lack of its further mention in the excavated Qin documents.

While the attempts to reconcile the early medieval record of the Qin commandery system with the evidence provided in administrative and legal documents may never produce a fully satisfying result, the newly published texts continue to challenge even the most recent reconstructions. The previously unknown Jianghu Commandery, whose location remains unidentified but was likely in the Yangzi Basin, appears in the ordinances from the Yuelu Academy

[159] Xin Deyong, "Qin Shihuang sanshiliu jun xinkao," 77-78.

collection. A yet unpublished document from Liye mentions "the governor of Wuling" (*Wuling taishou* 武陵泰守), suggesting the existence of a Wuling 武陵 Commandery at some point between 222 and 208 BCE.[160] The commandery is well-known from the Han period when it included much of the territory of the Qin Dongting Commandery. It was generally believed that the latter was renamed as Wuling early in the Western Han, probably under the Han founding Emperor Gao 高帝 (Liu Bang 劉邦, r. 206–195 BCE, of which 202–195 BCE as an emperor).[161] If already established under the Qin, as the Liye document suggests, the Wuling Commandery most likely included some territories of Dongting. Some scholars related its foundation to the relocation of the seat of Dongting Commandery, to be discussed next.[162]

Dongting Commandery

Dongting Commandery is by far the best documented Qin commandery. This is due to the discovery of an administrative archive of one of its counties, Qianling, which allowed geographic localization of counties within this commandery. Scholars also attempted tracking the changes in the location of commandery's seat between 222 and 208 BCE. Although many questions in the

[160] *Liye fajue baogao*, 181.

[161] The geographical treatise in the official history of the Western Han Empire, the *Hanshu*, mentions that the Wuling Commandery was founded in the reign of Emperor Gao (r. 202–195 BCE), the first Han emperor. Eleven of the thirteen counties listed in the *Hanshu* for Wuling Commandery were also part of the Qin commandery of Dongting, which suggests a considerable degree of continuity between the two commanderies. See *Hanshu*, 28A.1594-1595. For a discussion of the relationship between the Qin Dongting and the Han Wuling commanderies, see, for example, Zhuang Xiaoxia 莊小叚, "*Liye Qin jian (yi)* suojian Qin dai Dongting jun, Nan jun shuxian kao" 《里耶秦簡（壹）》所見秦代洞庭郡、南郡屬縣考 [An analysis of the counties belonging to the Dongting and Nan commanderies during the Qin Dynasty and appearing in the first volume of the *Liye Qin jian*], in Bu Xianqun and Yang Zhenhong, eds., *Jianbo yanjiu 2012* (Guilin: Guangxi shifan daxue, 2013), 51-63; Yan Changgui, "Liye Qin jiandu junxian zhi," 185-187; Hou Xiaorong, *Qin dai zhengqu dili*, 425.

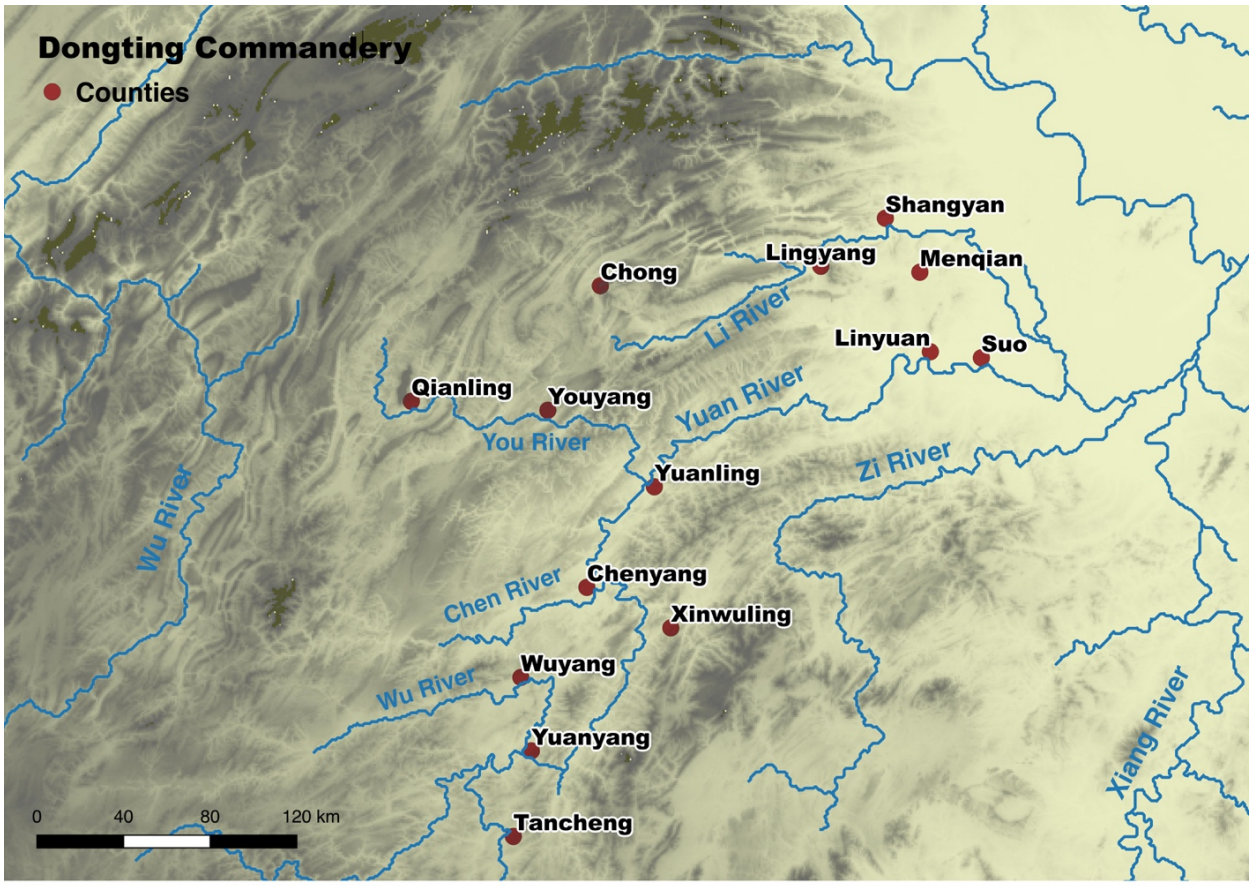
[162] Zheng Wei, "Chutu wenxian suojian Qin Dongting jun xinshi" 出土文獻所見秦洞庭郡新識 [New evidence of the Qin commandery of Dongting found in the excavated documents], *Kaogu* 11 (2016): 84-88, esp. 85.

historical geography of Dongting remain open, the outlines of the Qin administration to the west and south-west of Dongting Lake are relatively clear.

Dongting Commandery was composed of fifteen or sixteen counties located along the Li and Yuan Rivers and their tributaries (see Map 3.5[163] and Table 3.3). These river systems were the major communication and transportation routes and fundamentally defined the territorial integrity of the commandery.[164]

[163] The map is based on Zheng Wei, "Chutu wenxian suo jian Qin Dongting jun," 87, map 1.

[164] The best available maps of Dongting Commandery can be found in Zheng Wei, "Chutu wenxian suo jian Qin Dongting jun," 87; and You Yifei, "Zhanguo zhi Han chu de junzhi biange," 130. The list of counties belonging to the commandery expanded, and may further expand with the publication of more of the Liye documents. The most exhaustive lists are Yan Changgui, "Liye Qin jiandu junxian zhi," 186 (which includes fifteen counties); and You Yifei, "Zhanguo zhi Han chu de junzhi biange," 129-130 (includes sixteen counties). For the earlier lists of, respectively, ten and twelve counties, see Hou Xiaorong, *Qin dai zhengqu dili*, 425-429; and Zhuang Xiaoxia, "*Liye Qin jian (yi)* suojian Qin dai Dongting jun," 62.



Map 3.5: Counties of Dongting Commandery

Table 3.3: Counties of Dongting Commandery

#	County name	Geographic location	Comments
1	Linyuan 臨沅	Lower reaches of the Yuan River	Part of Han Wuling Com.[165]
2	Suo 索	Lower reaches of the Yuan River	Part of Han Wuling Com.

[165] This means that the county was part of the Western Han commandery of Wuling 武陵, which partly coincided with the Qin commandery of Dongting. The list of its thirteen counties is provided in *Hanshu*, 28A. 1594-1595. The relatively accurate identification of the geographic position of these counties facilitates locating other counties in Dongting Commandery (see below). For the map of the Western Han Wuling Commandery, see *Zhongguo lishi dituji*, vol. 2, 22-23.

3	Menqian 門淺	Lower reaches of the Li River	Located on the way from Suo to Lingyang (Liye 8-159, 9-712+)
4	Shangyan 上衍	Lower reaches of the Li River	Located on the way from Suo to Lingyang (Liye 8-159, 9-712+)
5	Lingyang 零陽	Li River basin	Part of Han Wuling Com.
6	Chong 充	Upper reaches of the Li River	Part of Han Wuling Com.
7	Yuanling 沅陵	Confluence of the Yuan and You Rivers	Part of Han Wuling Com.
8	Youyang 酉陽	Middle reaches of the You River	Part of Han Wuling Com.
9	Qianling 遷陵	Upper reaches of the You River	Part of Han Wuling Com.
10	Chenyang 辰陽	Confluence of the Yuan and Chen Rivers	Part of Han Wuling Com.
11	Xinwuling 新武陵	Confluence of the Yuan and Xu Rivers	= Han Yiling 義陵 County?[166]
12	Yuanyang 沅陽	Confluence of the Yuan and Wu Rivers	Location identified on the basis of an excavated Chu seal imprint[167]

[166] According to the *Hanshu* outline of Wuling Commandery's administrative geography, Yiling County belonged to that commandery under the Western Han. *Hanshu* mentions that this county was located at the place where the Xu River 溆水 (rendered as 序水 in the *Hanshu*) exits the mountains before flowing into the Yuan River to the west, see *Hanshu*, 28A.1595. This is also the reconstructed location of the Qin county of Xinwuling. For the identification of the Qin Xinwuling County with the Han Yi County, see, for example, Zheng Wei, "Chutu wenxian suojian Qin Dongting jun," 86.

[167] The seal bearing the graphs *Yuanyang* 沅陽 was excavated from the Warring States period Chu tomb no. 107 near the Qiancheng 黔城 township in the present-day Qianyang County 黔陽縣, Hongjiang Municipality 洪江市, in the south-west of Hunan Province. See Cheng Songchang, *Hunan gudai xiyin* 湖南古代璽印 [*The ancient seals from Hunan*] (Shanghai: Shanghai cishu, 2004), 38. The place is located to the north of the Yuan River, which corresponds

13	Wuyang 無陽	Lower reaches of the Wu River	Part of Han Wuling Com.
14	Peng 蓬	Unclear	
15	Tancheng 鐔成	Nanling Mountains	Part of Han Wuling Com.

While some of these counties are frequently mentioned in the Liye documents, others appear only in one or two texts.[168] Yet, single mentions are usually not helpful for reconstructing the geographic location of administrative units otherwise unknown from transmitted sources. Of particular value are the documents that list the counties along the communication and transportation routes, which allows relating previously unheard-of place names to the location already known from the *Hanshu* commentarial tradition. One such document is the account on the forwarding of an imperial edict within Dongting Commandery in 215 BCE[169]:

制書曰：舉事可為恒程者上丞相，上洞庭絡帬程有□□□
卅二年二月丁未朔□亥，御史丞去疾：丞相令曰：舉事可為恒程者□上帬直。即應令，弗應，謹案致……
□□丞相□□洞庭□□。/□手（正）
三月丁丑朔壬辰，洞庭□□□□□□□□□□□□
令□□□索、門淺、上衍、零陽□□□以次傳□□□□□
書到相報□□□□門淺、上衍、零陽言書到，署□□發
□□□□一書以洞庭發弩印行事□□恒署
酉陽報□□□署令發。/四月癸丑水十一刻刻下五，□高□辰以來□□
遷陵□，酉陽署令發

well to the place name "Yuanyang" ("Northern bank of Yuan"). For a discussion, see Zheng Wei, "Chutu wenxian suojian Qin Dongting jun," 86.

[168] For example, the county of Xinwuling is mentioned at least eight times in the documents published in the first volume of the Liye materials, while other counties, such as Peng, is only mentioned once. See Yan Changgui, "Liye Qin jiandu junxian zhi," 174, 177-179. The frequent mentioning of Xinwuling is probably explained by the fact that this county served as the seat of Dongting Commandery after its foundation in 222 BCE.

[169] *Liye Qin jiandu*, vol. 1, 96-97, tablet 8-159.

□□□□布令□（背）

Front side
An imperial edict states: "[When] permanent norms/quotas can be [applied] for certain activities, these [standards] should be submitted to the Chancellor." Submit the standards/quotas for the woven skirts[170] for Dongting [Commandery]…
In the thirty-second year [of the First Emperor], in the second month, *ding-wei* being the first day of the month, on the day [*xin*-]*hai* (March 25, 215 BCE), [Feng] Quji, the Assistant to the Imperial Secretary,[171] [states the following]: The ordinance [issued by the] Chancellor states: "[According to the requirement that] permanent norms/quotas should be applied whenever possible," …submit the value of skirts. If [one is required to] act according to the ordinance and he does not act, carefully investigate into the matter…
…Chancellor… Dongting [Commandery]… / Drafted by…

Back side
In the third month, *ding-chou* being the first day of the month, on the day *ren-chen* (May 5, 215 BCE), Dongting [Commandery]…
Order… [the counties of] Suo, Menqian, Shangyan, Lingyang… forward according to the sequence [of counties]…
[The counties] report each other on the arrival of the document… Menqian, Shangyan, Lingyang report on the arrival of the document, marking [the report] to be opened by…[172]
…One document processed on the strength of the seal of the Dongting Commander of Crossbowmen[173]… [a document] of urgency.[174]
Youyang [County] reports… marked to be opened [at the office of county] Magistrate. / In the fourth month, on the day *gui-chou* (May 26, 215 BCE), at the eleventh mark of

[170] This was probably a part of soldier's clothing, see *Liye Qin jiandu*, 92, tablet 8-152, comm. 3.

[171] The "Basic Annals of the First Emperor" in the *Shiji* mention Feng Quji 馮去疾, the Chancellor of the Right (*you chengxiang* 右丞相), who stayed in the capital to look after government affairs in 213 BCE while the Chancellor of the Left, Li Si 李斯, accompanied the emperor on one of his progresses. See *Shiji*, 6.260. This may have been the same person as mentioned here, see *Liye Qin jiandu*, 97, tablet 8-159, comm. 3.

[172] The formulaic phrase *shu… fa* 署…發 was used to indicate that a document had to be opened by a specific bureau of the county administration. In the present case, the name of the bureau did not survive.

[173] Commander of Crossbowmen 發弩 was a commandery official with military functions who in the absence of a commandery governor could also handle other administrative matters of the commandery. For a discussion, see You Yifei, "Zhanguo zhi Han chu de junzhi biange," 101-105.

[174] The meaning of the term *heng shu* 恒署 is not very clear. Other Liye documents contain references to *heng shu shu* 恒署書, the term that also appears in one of the statutes from the Yuelu Academy collection that prescribes the delivery of these documents by the post relay (*yi you xing* 以郵行), see *Liye Qin jiandu*, vol. 1, 273-274, tablet 8-1073; vol. 2, 334, tablet 9-1600; *Yuelu shuyuan cang Qin jian*, vol. 5, 103, slip 108. Chen Songchang explains this term as "a document of particular importance," see *Yuelu shuyuan cang Qin jian*, vol. 5, 152, comm. 21.

the water [clock], in the lower fifth [section] of the mark… Delivered by Chen… [from] Gao[175]…
Qianling [County]… [From] Youyang, marked to be opened [at the office of county] Magistrate.
…ordinances on finance (?)[176]…

This document provides clues to the spatial relationship between the two groups of counties within Dongting Commandery. First, from Suo County, which from the transmitted records is known to have been located in the lower reaches of the Yuan River in the south-western part of the Dongting Plain, the document was forwarded to Lingyang County in the Li River basin via Menqian and Shangyan counties, suggesting the two were located along the south-western rim of the Dongting Plain that connected the lower reaches of the Yuan and Li Rivers.

[175] The part of sentence preceding the name of the individual who delivered the document identifies his place of household registration, which is usually composed of county (*xian* 縣) and community (*li* 里, either a rural village or an urban ward) names. Here the graph *gao* 高 may refer to one of the two known wards of the Qianling county town, which administratively coincided with the Town District 都鄉 of this county. In this case, the whole phrase can be reconstructed as 都高里辰以來 ("delivered by Chen, from Gao Ward of the Town District"). Note that an individual with the same name appears in another Liye document on the tablet 12-1527, also dated from 215 BCE, where he is identified as "Chen, the postman of the Town District, of a commoner status, from the Gao ward" 都郵人士五（伍）高里辰, see *Hunan chutu jiandu xuanbian*, 125. If this is the same individual, the document under consideration was delivered by the post relay, rendering further support to its identification with the *heng shu shu* of the Yuelu Academy ordinance. For the wards in the Town District of Qianling County, see Yan Changgui and Guo Tao 郭濤, "Liye Qin jian suojian Qin Qianling xian xiangli kao" 里耶秦簡所見秦遷陵縣鄉里考 [A study of districts and communities in the Qin Qianling County as reflected in the Qin documents from Liye], *Jianbo* 10 (2014): 145-154, esp. 146-148; and Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu" 里耶簡牘所見秦遷陵縣鄉里研究 [A study of the districts and villages/wards in the Qin county of Qianling mentioned in the Liye documents], in Yan Changgui, *Qin jiandu dili yanjiu*, 189-231, esp. 206-212.

[176] The two characters in the poorly preserved final line on the back side of this tablet may be interpreted as a reference to an ordinance concerning financial matters (*jinbu ling* 金布令, literally "ordinances on gold and cloth"), to which the ordinances quoted earlier in the document belonged. This reading is hypothetical and is informed by the context of the present document that is concerned with establishing the norms for assessing the value of soldiers' clothing. In the local Qin administration, such matters most likely fell within the purview of the county Bureau of Finance (*jinbu cao* 金布曹), which will be discussed in the next section of this chapter. "Ordinances on finance" (*jinbu ling*) are mentioned in the transmitted texts, see *Hanshu*, 78.3278; for a discussion, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 915.

Second, Qianling received its copy of the Chancellor's ordinance from Youyang. Since the document was dispatched by the commandery authorities, whose seat was situated in the Yuan River basin (see below), it would have first arrived to a county located down the You River, which was the western tributary of the Yuan River, before being forwarded to a county located further upstream. Youyang was therefore located downstream (that is, to the east) of Qianling, something we otherwise already know from the transmitted texts.

While only the latter of these two routes would have been relevant for Qianling, information about the former was nevertheless copied in the document as it probably constituted a part of the detailed prescription by the Dongting Commandery authorities concerning the correct order of delivery and reporting. Topographic features may provide an explanation of why this particular route is outlined in such detail not only in this but also in some other Liye documents.[177] The order of document delivery in the Yuan River basin did not require additional clarification since county towns were located along the rivers that crossed this mountainous region. All communications with the upstream counties were by necessity passing via the downstream ones. In contrast, the smoother terrain of the Dongting Plain and lower reaches of the Yuan and Li allowed for alternative routes. In fact, after passing Suo and Menqian counties, one could proceed to Lingyang before going to Shangyan.[178] One could also go to Menqian directly from Linyuan County, somewhat upstream of Suo, without passing through this county.[179] The prescribed delivery route had to be explained in each case, since the correct delivery procedure would have

[177] See *Liye Qin jiandu*, vol. 2, 38-40, tablet 9-26; 186-189, tablet 9-713.

[178] *Liye Qin jiandu*, vol. 2, 186-189, tablet 9-713.

[179] *Liye Qin jiandu*, vol. 2, 38-40, tablet 9-26.

been important in evaluating the performance of officials and personnel involved in transmitting information (see Chapter 5).

Documents such as the one on the tablet 8-159 originated in the government of Dongting Commandery, yet the text does not explicitly state the location of its office. The delivery route from Suo to Lingyang suggests the document arrived in Suo from up the Yuan River. But where exactly was the commandery seat at the time when this text was drafted? Other Liye documents provide clues:[180]

廿七年十一月戊申朔癸亥，洞庭叚守昌謂遷陵丞：遷陵上，坐反適臯當均輸郡中者六十六人。今皆輸遷陵，其聽書從事, 它如律令。 · 以新武陵印行事。
十二月丁酉，遷陵守丞敦狐告司空主事，以律令從事。/夫手。走郤即行。（正）
司
十二月丙申旦□，佐黑以來。/莫邪半。癰手。（背）

Front side
In the twenty-seventh year [of King Zheng, i.e., the First Emperor], in the eleventh month, *wu-shen* being the first day of the month, on the day *gui-hai* (January 2, 220 BCE), Chang, the Acting Governor of Dongting [Commandery],[181] instructs the Vice-Magistrate of Qianling [County]: "[In response] to the request by the Qianling [authorities], there are 66 individuals who are guilty of violations that are penalized by sentencing to fines and that should be equally distributed across the commandery. Now all of them are transferred to Qianling, process the matter according to the documents and other [matters] according to the statutes and ordinances. · Process the matter on the strength of the seal of Xinwuling.
In the twelfth month, on the day *ding-you* (February 5, 220 BCE), Dunhu, the temporary Vice-Magistrate of Qianling [County], instructs those in chagre of the matters at [the office of] the Controller of Works to process the matter according to the statutes and ordinances. / Drafted by Fu. Delivered by the runner Sheji.

Back side

[180] *Liye Qin jiandu*, vol. 2, 35-37, tablet 9-23.

[181] The prefix *jia* 叚（假） in front of the official title signified that a person was temporarily performing the duties of a certain office. See *Liye Qin jiandu*, vol. 1, 28, tablet 8-2, comm. 1. For a recent study of the the official placeholder positions in the Qin bureaucratic organization, see, for example, Chapter 3, "Qin dai shou guan, jia guan zhidu kaolun" 秦代守官、假官制度考論 [Discussion of the "official placeholders" and "temporary officials" system in the Qin Empire] in Chen Songchang, *Qin dai guanzhi kaolun*, 112-137.

Controller ([of Works]?)
In the twelfth month, on the day *bing-shen* (February 4, 220 BCE), in the morning…, delivered by Assistant Hei. / Opened by Moye. Drafted by Yong.

The document suggests that early in 220 BCE the seat of the Acting Governor of Dongting Commandery was located at Xinwuling 新武陵, and the documents dispatched by the senior commandery officials were authorized by the seal of this county.[182] It is noteworthy that a head of the commandery used a county seal rather than his own. This, however, appears to have been a common practice in Qin, which is attested in other Dongting Commandery documents (see more examples below), but also in the documents drafted in other commanderies.[183]

There are other indications that in the years immediately after the foundation of Dongting Commandery, Xinwuling County served as its seat. The circular letter of the Dongting governor dated to March 26, 219 BCE, which has been partly translated in Chapter 2, contains a prescription on the order of delivery, according to which the four copies of the letter had to be forwarded from Xinwuling along four separate routes.[184] An identical delivery instruction accompanies another document drafted by the Dongting Governor in 220 BCE[185] as well as a document fragment of unclear date.[186] Other texts mention Xinwuling as a destination where official evaluations (*ke* 課)

[182] Zheng Wei, "Chutu wenxian suojian Qin Dongting jun," 84-85.

[183] See, for example, *Liye Qin jiandu*, vol. 1, 46-47, tablet 8-61+8-293+8-2012. This document was originally composed in Ba 巴 Commandery and processed on the strength of the seal of Jiangzhou 江州 County, which was one of the counties belonging to that commandery.

[184] *Liye Qin jian*, vol. 2, 85, tablet 9-2283.

[185] *Liye Qin jiandu*, 193-194, tablet 8-657. The text on the tablet is partly damaged, and the part of the inscription mentioning the year did not survive. Yet the date can be reconstructed with the high degree of confidence on the basis of dates that appear in the document.

[186] *Liye Qin jiandu*, vol. 2, 357, tablet 9-1759+9-1855+9-1889.

had to be delivered.[187] Such evaluations were submitted by the county authorities to their commandery superiors.

However, Xinwuling did not remain the seat of the Dongting Commandery authorities for too long. In 213 BCE, the Dongting Governor was dispatching his instructions to the subordinates from a different location:[188]

> 卅四年六月甲午朔乙卯，洞庭守禮謂遷陵丞：丞言徒隸不田，奏曰：司空厭等當坐，皆有它罪，（8-755）耐為司寇。有書，書壬手。令曰：吏僕、養、走、工組織、守府門、削匠及它急事不可令田，六人予田徒（8-756）四人。徒少及毋徒，薄（簿）移治虜御史，御史以均予。今遷陵廿五年為縣，廿九年田廿六年盡廿八年當田，司空厭等（8-757）失弗令田。弗令田即有徒而弗令田且徒少不傅于奏。及蒼梧為郡九歲乃往歲田。厭失，當坐論。即（8-758）如前書律令。/七月甲子朔癸酉，洞庭叚守繹追遷陵。/歇手· 以沅陽印行事（8-759）
> 歇手。（背）（8-755）
>
> *Front side*
> In the thirty-fourth year [of King Zheng, i.e., the First Emperor], in the sixth month, *jia-wu* being the first day of the month, on the day *yi-mao* (July 16, 213 BCE), Li, the Governor of Dongting Commandery, notifies the Vice-Magistrate of Qianling [County]: "You, the Vice-Magistrate, told that the laborer-servants did not work the fields, and submitted a petition saying: "The Controller of Works Yan and others should be held responsible, all of them [also] have other crimes, so [they should] have their beards shaved and made robber-guards." [For this petition] there is a document, which was drafted by Ren."
> The ordinance states: "One must not order officials' servants, cooks, runners, artisans, weavers, those guarding the gates of [the official] storage facilities (or offices), and the artisans [in charge of] cutting [bamboo and wood for writing stationary] as well as others engaged in urgent tasks to work the fields. [For each] six men [of such occupations], four agricultural laborers should be provided. When the number of laborers is insufficient, or no laborers are available, the register [of laborers] should be transferred to the Secretary for Managing Captives, who will assign [laborers] so that the [above-mentioned] balance is maintained."
> Now Qianling County was established in the twenty-fifth year [of King Zheng, i.e., the First Emperor] (222 BCE), yet it was not until the twenty-ninth year (218 BCE) that the fields that were to be cultivated between the twenty-sixth and twenty-eighth year (221–

[187] *Liye Qin jiandu*, vol. 1, 377, tablet 8-1677.

[188] *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759.

219 BCE) were [finally] cultivated. Yan, the Controller of Works, and others failed [their official duty by] not ordering that fields be cultivated. [What is meant by] not ordering the fields to be cultivated is having laborers and not ordering them to work the fields, or having small number of laborers and not passing [this information] so that petition [is submitted].
Also, only nine years after the Cangwu Commandery was established that [the laborers] were directed [there] to cultivate fields for a year. Yan [and others] failed [their duty] and should be held responsible and sentenced [accordingly]. Proceed in accordance with what [has been stated] in the previous documents and with the statutes and ordinances. / In the seventh month, *jia-zi* being the first day of the month, on the day *gui-you* (August 3, 213 BCE), Yi, the Acting Governor of Dongting Commandery, chases Qianling County [to report on the matter]. / Drafted by Xie. The document is processed on the strength of the seal of Yuanyang [County].

Back side
Drafted by Xie.

This document provides many important details on various aspects of the official economic management in the Qin Empire, which will be addressed later. Here, however, it is important to notice that by 213 BCE the seat of the Dongting Governor had already relocated to the Yuanyang 沅陽 County, which was up the Yuan River from Xinwuling (see Map 3.5). The seal of Yuanyang was used to process another document drafted in the governor's office the same year.[189]

In his study of the administrative geography of Dongting Commandery, Zheng Wei 鄭威 hypothesizes that relocation of the commandery seat sometime before 213 BCE may have been related to the southern campaigns that the empire launched in 214 BCE. Commandery governor had to be close to the war theater in order to organize logistical support and probably also to lead troops.[190] While such scenario is not unlikely, it should be noticed that the

[189] *Liye Qin jiandu*, vol. 1, 348, tablet 8-1523.

[190] Zheng Wei, "Chutu wenxian suojian Qin Dongting jun," 85-87.

commandery seat relocated more than once. On March 7, 214 BCE, for example, the Acting Governor of Dongting (*Dongting jia shou* 洞庭叚（假）守) used the seal of Linyuan 臨沅 County to authorize an instruction to the subordinate counties. Less than a month later, on April 2, a follow-up message by the same governor was sealed with the seal of Shangyan 上衍 County.[191] The two counties were located in the lower reaches of the Yuan and Li Rivers, respectively.

It is probably needless to say that any attempt to correlate the relocations of governor's office to the contemporary political events are speculative in the absence of direct evidence. One can, for example, hypothesize that early in 214 BCE the Dongting authorities decided to move their headquarters to the north-eastern part of their commandery where most of its population and agricultural production should have been concentrated, in order to personally supervise the mobilization for the southern campaign. Later the same year, they moved to Yuanyang in the upper reaches of the Yuan River, in the immediate rear of the Qin troops marching south. The changes in the location of commandery seat may also have been related to the foundation of the new commandery, Wuling, which probably included some of the counties previously belonging to the Dongting jurisdiction.[192]

What is more certain is that the very notion of a commandery seat (*jun zhi* 郡治) in Dongting was very different from that in the "old" Qin commanderies. While some counties, such as Xinwuling, probably served as such for a period of two years or longer, the commandery headquarters could be relatively easily relocated to a new place when necessitated by

[191] *Liye Qin jian bowuguan*, 135, tablet 12-1784.

[192] Zheng Wei, "Chutu wenxian suojian Qin Dongting jun," 87.

circumstances. Essentially, the commandery seat was wherever the governor was at the moment. This may explain the practice of sealing the documents with the county seals: recipients of commandery correspondence had to be updated on the present whereabouts of the governor and other officials who assisted the governor and constituted his office.

The same applied to the offices of other senior commandery officials in the "new territories". In 220 BCE, the governor of Langye 琅邪 Commandery (in the south of the present-day Shandong Province) notified his colleagues throughout the empire about the location of his Commandant's (*wei* 尉) office, suggesting that it had recently changed.[193] One may speculate that the spatial separation of the two senior commandery officials, the governor and the commandant, pursued, among other goals, the simultaneous presence of commandery authorities at more than one location, which further improved their ability to promptly react to possible crises.[194]

Although the Qin took over much of the preexisting administrative organization in the conquered lands, the decision on the appropriate location for the commandery authorities required time, and in places like Dongting the process may not have been completed until the end of the Qin Empire. The lack of a stable commandery center can be viewed as yet another manifestation of the fluidity of the Qin administrative organization to the south of the Middle Yangzi and probably in the "new territories" in general. While the central government was

[193] *Liye Qin jiandu*, vol. 1, 193-194, tablet 8-657. For the location of Langye Commandery, see *Zhongguo lishi dituji*, vol. 2, 7-8.

[194] On the spatial separation of the three senior commandery offices, those of Governor (*shou* 守), Commandant (*wei* 尉), and Inspector (*jian* 監), as part of the organization of commandery government in the Qin Empire, see You Yifei, "Shoufu, weifu, jianfu – Liye Qin jian suojian junji xingzheng de jichu yanjiu zhiyi" 守府、尉府、監府—里耶秦簡所見郡級行政的基礎研究之一 [Governor's office, Commandant's office, Inspector's office – A study of the foundations of commandery administration reflected in the Qin documents from Liye], *Jianbo* 8 (2013): 229-238; and You Yifei, "Zhanguo zhi Han chu de junzhi biange."

trying to find the ideal territorial configuration for commanderies, commandery authorities were frequently moving their headquarters in search for a location suitable for the efficient control over subordinate territories, but also in response to the ongoing challenges from both within and outside the borders of their jurisdiction.

2.4. Challenge from within: insurgency, unrest, and control over population

In early 220 BCE, less than two years after the foundation of Cangwu Commandery, its authorities found themselves in a precarious situation. What at first appeared to be local unrest in one of the counties developed into a full-fledged insurgency. County officials mobilized local inhabitants to assist the troops, but the government forces were defeated. In fear of punishment for fleeing the battlefield, deserter conscripts concealed themselves in the mountains, which further aggravated the crisis. The commandery leadership characterized the situation as "extremely harmful and difficult," potentially resulting "in total defeat."[195] Although the officials were eventually able "to lure and summon [the deserters] to gather within the city walls, and to conduct secret interrogations… to distinguish them and arrest and detain [in shackles] those who had fled the battlefield," it is unclear whether or not the rebellion itself was eventually crushed.[196] The deserters faced a dire fate. According to the Qin military law, they had to be sentenced to death for "lacking courage and not fighting," even though investigation revealed the responsibility for the defeat fully rested with the incompetent officers.[197]

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[195] *Ernian lüling yu Zouyanshu*, 364, slips 129-130; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1338-1339.

[196] *Ernian lüling yu Zouyanshu*, 365, slip 153. Translation follows Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1345.

[197] For the discussion of the legal norm according to which the deserters were sentenced, and its relationship to the military law, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1357, n. 64.

Such hardhanded approach to legal justice did little to make the Qin authorities popular among the local populace. Interestingly, while the local officials in Cangwu at first adopted a milder stance toward the deserters and offered them amnesty, it was the investigators from one of the "old" Qin territories, Nan Commandery, who insisted on merciless repression. Located to the north of the Middle Yangzi, Nan Commandery was the major Qin stronghold in the region. It experienced a considerable influx of Qin migrants accompanied by the expulsion of the local Chu population (see Chapter 2). By the end of the Warring States period, its inhabitants, both commoners and officials, viewed the "new territories" to the south of the river with suspicion.[198] It resonated with the government's conviction that "the acquired new territories of Chu abound in gang robbers" 所取荊新地多群盜.[199] As discussed previously, the recently conquered lands were perceived as the major source of danger and potential invasion.

It is unclear how typical the rebellions such as the one that happened in 220 BCE in Cangwu Commandery were in the Qin South. No important uprising is mentioned in transmitted histories. Yet unrest appears to have been endemic in some areas. In the late empires, mountainous Western Hunan was known as a notoriously unruly land famous for its banditry. This was probably the case from the very beginning of imperial rule. Dongting Commandery had barely been established when the reports about "bandit" activity started to arrive. Officers complained about the inadequacy of their forces and demanded reinforcements:[200]

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[198] In this chapter, I have already discussed the private letters by the Qin conscripts from Nan Commandery who complained to their families about the dangers and disorder in the newly conquered Chu lands. For a discussion of the loyalties and identity of the commandery's residents as manifest in the excavated texts, see Kum Jae Won 琴載元, "Qin dai Nan jun bianhumin de Qin, Chu shenfen rentong wenti" 秦代南郡編戶民的秦、楚身分認同問題 [A problem of Qin and Chu identities among the commoner population of the Nan Commandery during the Qin period], *Jianbo yanjiu 2015*. *Qiu dong juan*, 78-92.

[199] *Ernian lüling yu Zouyanshu*, 365, slip 157.

[200] *Liye Qin jiandu*, vol. 2, 260-261, tablet 9-1112.

【廿】六年二月癸丑朔丙子，唐亭叚校長壯敢言之：唐亭旁有盜可卅人。壯卒少，不足以追。亭不可空。謁遣卒索。敢言之。/二月辛巳，遷陵守丞敦狐敢告尉、告卿（鄉）主，以律（正）
令從吏（事）。尉下亭鄣署，士吏謹備。貳卿（鄉）上司馬丞。/亭手。/即令走涂行。
二月辛巳，不更輿里戊以來。/丞半。壯手。（背）

Front side
[In the twenty-sixth year of King Zheng, i.e., the First Emperor], in the second month, *gui-chou* being the first day of the month, on the day *bing-zi* (March 21, 221 BCE),[201] Zhuang, the Acting Constable of Tang Post, dares to report this: "There are bandits in the vicinity of Tang Post, about thirty men strong. Able-bodied soldiers [at my post] are few, not enough to pursue [them]. The post cannot be left unguarded. I beg that [more] soldiers be dispatched to deal [with the situation]. I dare to report this." / In the second month, on the day *xin-si* (March 26, 221 BCE), Dunhu, the Provisional Vice-Magistrate of Qianling [County] requests the [County] Commandant and the District Heads to handle the matter according to the statutes

Back side
and ordinances. At the [guard] posts and frontier posts subordinate to the [County] Commandant, soldiers and officers [should] make careful preparations. Er[chun] District should report to the Assistant of the Military Commander [of the commandery?]. / Drafted by Ting. / Immediately order the runner Tu to deliver [the document].
In the second month, on the day *xin-si*, delivered by Xu, the holder of the 4th rank, of the Yu Village. / Opened by Cheng. Drafted by Zhuang.

The Lieutenant Commander (*sima* 司馬) mentioned in the text on the back side of the tablet was a commandery-level military official. That the district authorities were allowed to directly contact him suggests that Qianling forces could have been insufficient to defeat the gang. This was clearly an emergency situation since sub-county administrative units and offices were normally

[201] Although the first graph on the tablet is not readable, the document can confidently be dated to the twenty-sixth year of the First Emperor based on the dates mentioned in the text. See also Liye Qin jiandu jiaoshi xiaozu 里耶秦簡牘校釋小組, "*Liye Qin jian (er)* jiaodu (yi)" 《里耶秦簡（貳）》校讀（一） [Annotated readings (part 1) from the *Liye Qin jian*, vol. 2], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=3105, accessed December 3, 2018.

required to process all their communications with the outside world through the county court (see Chapter 2 and below).

Reports on bandits and gangs occur frequently in the Qianling archive. Most of these records are fragmentary.[202] An undated fragment of a legal investigation record mentions an attack by the "rebellious bandits" (*fan kou* 反寇) and the government's effort to counter them.[203]

Some records are more specific about the identity of "bandits." One fragment reports the "barbarians who come to plunder" (*manyi lai dao* 蠻夷來盜).[204] Indigenous people who probably constituted the majority of the local population (see below) were considered a threat by the Dongting authorities who were aware of the resistance to the Qin invasions and uprisings among the *Yue* people.[205] One document from Liye indicates that various non-*huaxia* populations were removed from the county centers: Qianling reported on the absence of *pu* 濮, *yang* 楊, and *yu* 臾 people among the residents of the Town District where the county town was located.[206]

Relationships between the indigenous populations and the Qin government were not necessarily hostile. In 213 BCE, the Qianling authorities reported not having any "barbarians serving rotations" of labor or military duty (*man gengzhe* 蠻更者) within their jurisdiction.[207] The document implies that in principle, some non-*huaxia* people could be called for service along with

[202] See, for example, *Liye Qin jiandu*, vol. 1, 404, tablet 8-1899; 458, tablet 8-2313; vol. 2, 563, tablet 9-3241.

[203] *Liye Qin jiandu*, vol. 2, 45-46, tablet 9-32.

[204] *Liye Qin jiandu*, vol. 2, 155, tablet 9-557.

[205] One of such uprising is probably mentioned in the fragmentary record of a legal investigation on tablet 12-10, see *Liye Qin jian bowuguan*, 57.

[206] *Liye Qin jiandu*, vol. 2, 466, tablet 9-2300. All three names are most likely referring to indigenous ethnic groups, see Liye Qin jiandu jiaoshi xiaozu, "*Liye Qin jian (er)* jiaodu (yi)," accessed December 27, 2018.

[207] *Liye Qin jiandu*, vol. 1, 328, tablet 8-1449+8-1484.

the general Qin populace.[208] Yet the problem with the local tribal groups was probably that they remained largely beyond government control even when their presence was known to the state officials. For example, one fragmentary document from the Qianling archive mentions a group of 106 households of "new subjects" (*xin qianshou* 新黔首) with 1046 adult males.[209] The extraordinary large size of these "households" (almost 10 adult males per household) suggests they may have represented an indigenous non-*huaxia* population organized into extended kinship groups that the Qin officials denoted with a familiar term. In terms of size, this single group may well have exceeded the entire registered population of the county.[210] Lack of any further information in the published Liye documents suggests that, in spite of their relatively large numbers, these people were relatively marginal to the Qin system of revenue and labor extraction in the area.[211]

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[208] A legal case from the beginning of the Western Han period deals with an abscondence by a "barbarian" (*manyi*) conscripted for military service. See *Ernian lüling yu Zouyanshu*, 332-337, slips 1-7; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1171-1183.

[209] Zhang Chunlong 張春龍, "Liye Qin jian suojian de huji he renkou guanli" 里耶秦簡所見的戶籍和人口管理 [Household registers and population management in the Qin documents from Liye], in *Liye gucheng, Qin jian yu Qin wenhua yanjiu*, 190.

[210] For an analysis of the fragmentary document from Liye that mentions this unusual group of households, see Tang Junfeng, "Liye Qin jian suo shi Qin dai de "jian hu" he "ji hu" 里耶秦簡所示秦代的"見戶"和"積戶" ["Present households" and "aggregate households" under the Qin Dynasty as reflected in the Qin documents from Liye], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=1987#_ftnref34, accessed December 3, 2018. For the size of registered population in the Qianling County, see Chapter 2.

[211] An alternative interpretation concerning this unusual group of households suggests they were the original Chu population of the area as opposed to the settlers who arrived after the Qin conquest, see Kim Jonghi 金鐘希, "Qin dai xianting de gongneng he Qin diguo miewang" 秦代縣廷的功能和秦帝國滅亡 [Functions of the county court under the Qin and the collapse of the Qin Empire], in *Liye Qin jian yu Qin wenhua xueshu yantaohui lunwenji* [*Proceedings of the Scholarly Conference on Qin Documents from Liye and Qin Culture*], Liye, China, September 15-17, 2017. I am grateful to Prof. Robin D.S. Yates for bringing this volume to my attention.

However, it should be pointed out that none of the twenty-two individual household registers excavated from the moat surrounding the Liye fortress, which account for both the Chu and newly arriving Qin households, record such enormous households as in the above-mentioned document. An average household size in these registers is 6.2 persons per household, which is more or less close to the size of a nuclear household of 5 persons described in the transmitted texts. This seem to support Tang Junfeng's suggestion that these 106 extra-large households were not part of the core

The scarcity of information about indigenous populations in the published Liye documents goes a long way in explaining the extremely low population numbers in Qianling. The registered permanent population of the county never exceeded 200 households. Twenty-two fully or partly preserved household registers excavated from the northern section of the moat surrounding the county town suggest the size of a household between four and eleven individuals, with an average of 6.2 persons per household.[212] 191 households, the maximum number of households mentioned in the published Liye texts, would have included around 1,200 individuals, and the number of adult men among them was almost certainly much less than in the above-mentioned, purportedly indigenous group.

The silk maps of the Western Han regional princedom of Changsha excavated from the tomb no. 3 at Mawangdui 馬王堆 (near the present-day city of Changsha, Hunan Province) provide pictorial evidence for the configuration of the Han state's spatial presence to the south of the Middle Yangzi some fifty years after the Qianling documents were drafted (see Illustration 3.2).[213]

registered population of the county but rather represented a separate group that was not referred in most of the population-related records from the Qianling archive.

[212] For the population registers, see *Liye fajue baogao*, 203-210. The average size of household is estimated on the basis of ten fully preserved registers that record all members of the respective households. It should be pointed out that household registers recorded not only family members but also slaves (*chen* 臣). For a discussion of these documents, see, for example, Sanft, "Population Records from Liye: Ideology in Practice," in Yuri Pines, Paul R. Goldin and Martin Kern, eds., *Ideology of Power and Power of Ideology in Early China* (Leiden and Boston: Brill, 2015), 249-269. For the status of slaves as household members reflected in the Liye population registers, see Yates, "The Changing Status of Slaves in the Qin-Han Transition," in *Birth of an Empire*, 206-223.

[213] Cao Wanru 曹婉如 et al., eds., *Zhongguo gudai dituji* 中國古代地圖集 [*Collected Chinese historical maps*] (Beijing: Wenwu, 1997), vol. 1: *Zhanguo – Yuan* 戰國─元 [*Warring States to the Yuan Dynasty*], ill. 26.

Illustration 3.2: Garrison map (*Zhu jun tu* 駐軍圖) from Mawangdui tomb no. 3 (fragment)

The settlements are marked by circles with the settlement name inside. They are clustered along the main rivers, which in this case are the upper reaches of the Xiang River and its tributaries. The population of eighteen settlements for which such information is recorded varied between as

little as 4 and as many as 108 households, with the average of 38.6 households.[214] This would amount to 965 households for twenty-five settlements marked on the map, with the total population of some 6,000 individuals if the average household size in the Liye registers is applied.

The Mawangdui "garrison map" covers only the south-western part of the early Western Han princedom of Changsha.[215] In 111 BCE, the new commandery of Lingling 零陵 was established in this area. By the turn of the common era, its registered population amounted to 139,378 persons in 21,092 households,[216] a 23-fold increase over some 170 years. This suggests an annual growth rate of 13%, which certainly could not have been purely natural. While it can partly be explained by immigration, registration of the indigenous people during the Han era was probably the key factor in the rapidly increasing population numbers in southern commanderies.[217]

This process was only beginning when the Qin established administration in the "new territories" to the south of the Yangzi. During the fifteen years to the collapse of the Qin Empire, the vast majority of the indigenous population most likely remained beyond the reach of the local government, which had but a vague idea about the number of "barbarians" in the mountains and

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[214] Lu Xiqi 魯西奇, "Han Song jian Changjiang zhongyou diqu de xiangcun juluo xingtai jiqi yanbian" 漢宋間長江中游地區的鄉村聚落型態及其演變 [The changing structure of rural settlements in the Middle Yangzi region during from the Han to the Song period], *Lishi dili* 23 (2008): 128-151, esp. 131, table 1. Note that at the time the map was drafted, many of these settlements were abandoned by their inhabitants, as signified by the notes *jin wu ren* 今毋人 ("nowadays no people [here]") next to the names of thirteen settlements. The local population might have fled from the Nanyue 南越 invasions recorded during the regency of Empress Lü 呂后 (188–180 BCE) and early in the reign of Emperor Wen 文帝 (180–157 BCE), see *Shiji*, 113.2969-2970. The *Shiji* account of the Nanyue state highlights the lasting animosity between Nanyue and the Princedom of Changsha. Another possible explanation is local rebellion implied by the notes *bu fan* 不反 ("did not rebel") next to five place names on the "garrison map." Were these the settlements that did not join a revolt that resulted in the displacement of much of the local population?

[215] Ge Jianxiong 葛劍雄, *Zhongguo gudai de ditu cehui* 中國古代的地圖測繪 [*Map-making in ancient China*] (Beijing: Shangwu yinshuguan, 2004), 53.

[216] *Hanshu*, 28A.1595-1596. For the location of this commandery, see *Zhongguo lishi dituji*, vol. 2, 22-23.

[217] As suggested in Wei Bin 魏斌, "Household registration," paper presented at the Tang Center for Early China workshop "Zoumalou administrative documents," Columbia University, New York, April 28-29, 2017.

on the plateaus surrounding the main river valleys where its officials and soldiers resided behind the town walls. The lack of control over the local indigenous population explains the authorities' anxiety about hostile incursions from the "new territories" as well as the policies of massive imports of unfree manpower and garrison servicemen to the recently conquered regions.

3. Local administration and economic management in Qianling County

Qianling County is by far the best documented part not only of Dongting Commandery but also of the Qin Empire. This is due not to its central location or importance but to the vicissitude of source preservation. Seventeen thousand inscribed wooden boards and fragments along with a handful of bamboo slips were excavated at Liye, which was the site of the county's administration between 222 and 208 BCE. These documents provide unprecedentedly detailed information on the administrative geography, organization of local government, and human and natural resources of this frontier area. From the outset, it should be born in mind that Qianling was by no means a "typical" Qin county. In terms of the composition of its population, it should probably be described as a combination of a military base and a labor camp. The permanent farmer population of the area was tiny, unlikely to have ever exceeded 200 households.[218] At the same time, the garrison

[218] In the Han Empire, county-level administrative units were graded according to their population numbers. Those with more than ten thousand households qualified as large, and their magistrates received a salary grade between 1000 and 600 *shi*. Counties and marches with smaller number of households were considered small, so their magistrates were entitled to a lower salary grade of 300 to 500 *shi*. See *Hanshu*, 19A.742. By these standards, Qianling counted as a super-small county. It should be pointed out, however, that these norms probably did not apply in the frontier regions where counties with very small numbers of registered resident households were not untypical. Some counties in Lelang 樂浪 Commandery in the northern part of the Korean Peninsula annexed by the Han Empire in 108 BCE had as few as 200-300 households. In 45 BCE, one county had only 173 registered households, which is comparable to the numbers in Qianling County. See Hu Pingsheng, "Xinchu Han jian hukou buji yanjiu" 新出漢簡戶口簿籍研究 [A study of the newly discovered Han population registers on bamboo and wooden slips], *Chutu wenxian yanjiu* 10 (2011): 249-284, esp. 259-261. The population of some counties in the north-western frontier probably also numbered in hundreds rather than thousands of households. See Chun-shu Chang, *The Rise of the Chinese Empire*, vol. 2: *Frontier, Immigration, and Empire in Han China, 130 B.C. – A.D. 157* (Ann Arbor: The University of Michigan Press, 2007), 118-119.

stationed at the county consisted of at least 626 frontier servicemen (*shu* 戍), probably far in excess of the adult male population of Qianling.[219] The county also managed an unfree labor force measured in hundreds of convicts.[220]

The enormous occupational and gender imbalances as well as the skewed correlation between the permanent and temporary populations resulted in administrative and economic challenges that were probably much less acute in more populous and productive, less militarized parts of the empire, although they may have been generally typical for the frontier regions. One major issue was supplying soldiers and convicts with grain. One recent estimate puts the annual demand for grain by the Qianling garrison alone at 14,000 *shi* (ca. 280,000 liters), at the time when the annual grain tax income of the county in 212 BCE was less than 1,000 *shi* (see Appendix A).[221] Even though this was augmented by the output of state-managed farms, only a fraction of the total demand could probably be satisfied by the local agricultural produce, necessitating considerable food imports (discussed in more detail in Chapter 5) and the government's attempts to boost grain production in Qianling, for which purpose convicts and soldiers were directed to agricultural labor.

The management of this unusual society and economy was associated with an enormous output of documents, to which we owe much of our knowledge of this region. The largest groups of Liye texts are those dealing with the populations that had to be moved, fed, and organized by

[219] *Liye Qin jiandu*, vol. 1, 70, tablet 8-132+8-334. The date of this fragmentary document is uncertain. The co-occurrence of the day *ji-you* in the eleventh month and the day *xin-wei* in the twelfth month, which are mentioned in the last line of the text, is recorded for the 26th, 29th, 35th, and 36th years of the First Emperor of Qin (222/221, 219/218, 213/212, and 212/211 BCE, respectively) as well as for the 2nd year of the Second Emperor (209/208 BCE).

[220] The largest numbers of convicts recorded in the Liye documents published so far are 125 male and 101 female and child convicts sentenced to hardest labor punishments, 146 convicts sentenced to lighter punishments, and 189 convicts of various grades of labor sentences as well as debtor laborers. For a discussion of these numbers, see Miyake, "Shindai Senryō kenshi shokō," 1-32.

[221] Miyake, "Seifuku kara senryō tōchi he," 51-52.

the government on a day-to-day basis: registers of convict laborers and records of grain rations issued to soldiers, convicts, and functionaries. The Qin bureaucratic administration was geared to manage these state-dependent groups that were particularly important in the frontier. Practical and institutional responses formulated in the process of the attempted integration of "new territories" had lasting impact on the trajectories of empire-building in China.

3.1. Administrative division and settlement

Administrative division of Qianling County

As every other county in the Qin Empire, Qianling was divided into smaller units of territorial administration, the districts (*xiang* 鄉). The Liye documents record three such districts: the Du 都, or the Town District, named so because that was where the county town was located; Qiling 啟陵 District; and Erchun 貳春 District. Each district was headed by a District Head (*xiang sefu* 鄉嗇夫).

The Town District consisted of the county town and its environs, and most, if not all, of its population resided within the town walls. That the office of the Head of the Town District was located in close proximity to the county court is suggested by the delivery records in the documents exchanged between the two offices. In most cases where such information is available, the documents were delivered on the same day as they were drafted.[222] Scholars have also paid

[222] See *Liye Qin jiandu*, vol. 1, 103, tablet 8-170; 108, tablet 8-196+8-1521; 326-327, tablet 8-1443+8-1455; 356-357, tablet 8-1554; 417-418, tablet 8-2011. In three instances, on tablets 8-170, 8-196+8-1521, and 8-2011, the documents were delivered in the morning on the same day when they were drafted, which implies a very short distance between the offices of the district head and the county magistrate. Only in one case the document was delivered on the next day after it was inscribed, see *Liye Qin jiandu*, vol. 1, 195-196, tablet 8-660.

attention to the fact that the other two districts, Qiling and Erchun, reported on the issue of grain rations to functionaries, convicts, and soldiers, but no such records are known for the Town District. The reason is most likely that the Town District was also where the central county granary was located, so all grain issues here were processed by the Office of Granaries (*cang* 倉), which reported directly to the county authorities.[223]

The central location of the Town District within the county also defined its role in the circulation of documents. When a prescription on the order of mobilization for various labor pools issued by the Dongting governor in March 220 BCE reached Qianling, its magistrate instructed subordinates on the order of forwarding the commandery document to relevant officials within the county:[224]

> 三月辛酉，遷陵丞歐敢告尉：告鄉、司空、倉主聽書從事。尉別書都鄉、司【空，司空】傳倉，都鄉別啓陵、貳春，皆勿留脫。它如律令。
>
> In the third month [of the twenty-seventh year of King Zheng, i.e., the First Emperor], on the day *xin-you* (April 30, 220 BCE), Ou, the Vice-Magistrate of Qianling [County] dares to instruct the [county] Commandant: Instruct the senior officials of the districts and the offices of the Controller of Works and the Granaries to process matters according to [this] document. The Commandant should [dispatch] separate [copies of] the document to the Town District and to the Controller of Works, Controller of Works should transfer [the document] to the Granaries, and the Town District should [dispatch] separate [copies] to Qiling and Erchun [Districts]. All this should be done without delay. Other matters should be processed according to the statutes and ordinances.

[223] Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 194-196.

[224] *Liye Qin jiandu*, vol. 2, 447-452, tablet 9-2283. Part of this document was translated and discussed in Chapter 1.

The office of the Town District was located closer to the county court than those of the two other districts, so the circular documents arriving in Qianling were first forwarded to the Town District, which was then in charge of making two copies to be sent to the remaining two districts.

That the Town District spatially coincided with the county town is suggested by a report on one of its residents opening up new agricultural land:[225]

卅三年六月庚子朔丁巳，守武爰書：高里士五武自言：謁狠草田六畝武門外，能恒藉以為田。典縵占。（正）
九（六）月丁巳，田守武敢言之：上黔首狠草一牒。敢言之。銜手。
六月丁巳日水十一刻下四，佐銜以來。□發。（背）

Front side
In the thirty-third year [of King Zheng, i.e., the First Emperor], in the sixth month, *geng-zi* being the first day of the month, on the day *ding-si* (July 24, 214 BCE), the statement by Wu, the provisional [Head of the Office of Fields]: Wu, a commoner from Gao Ward, states the following: "I apply that the six mu of grassplot [that I] opened up outside of the Wu ("Martial") Gate be permanently registered as agricultural fields." Attested by the Community Head Man.

Back side
In the sixth month, on the day *ding-si*,[226] Wu, the provisional [Head of the Office of] Fields, dares to report this: "I submit one tablet [reporting on the] opening up of grassplot by the black-headed ones. I dare to report this." Drafted by Xian.
[In the sixth] month, on the day *ding-si*, at the eleventh mark of the water [clock], in the lower fourth [section], delivered by the Assistant Xian. Opened by…

The Gao Ward 高里 mentioned here appears in other Liye documents, one of which, dated August 13, 215 BCE, records the Head of the Town District submitting another transcript of a

[225] *Liye Qin jiandu*, vol. 2, 477-478, tablet 9-2344.

[226] "Nine" 九 instead of "six" 六 in the original text is clearly a mistake as there is no *ding-si* day in the ninth month of the thirty-third year of the First Emperor, see Xu Xiqi 徐錫祺, *Xi Zhou (gonghe) zhi Xi Han lipu* 西周（共和）至西漢曆譜 [*Date tables from the Western Zhou (Gonghe Period) to the Western Han*] (Beijing: Beijing kexue jishu, 1997), 1256.

statement (*yuan shu* 爰書) by a resident of Gao Ward, also named Wu.[227] It can therefore be established that this ward belonged to the Town District.[228] The fields opened up by its resident in 214 BCE lay immediately outside the gate, which could only have been the gate of the county town. Archaeological excavation of the Qin fortress at Liye revealed that its main gate was facing south, so this may have been where the newly opened fields were located. Wu himself was likely living in the town. The reason why this declaration was supervised by a county official in charge of the management of agricultural fields, the Head of the Office of Fields (*tian guan* 田官), was because Gao Ward was part of the county town, so county officials could immediately attend to its affairs. When similar statements on the opening of new lands for cultivation were made by the residents of other Qianling districts, they were recorded in the presence of the district heads who would then be responsible for forwarding the transcripts to the county government.[229]

Scholars have argued that at least one other ward, the Yang Ward 陽里, also belonged to the Town District. However, no direct evidence was available prior to the publication of the second volume of the Liye materials.[230] Newly published texts clarified this issue. One fragmentary document records the receipt of some materials from a resident of Yang Ward by the Head of the Town District.[231] Another text is probably a fragment of a summary record on the issue of food rations. In lists eight or nine individuals, four of whom were residents of Gao Ward, three of the

[227] *Liye Qin jiandu*, vol. 1, 326-327, tablet 8-1443+8-1455.

[228] Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 206-207.

[229] See, for example, a similar transcript of a statement by a private individual on the opening up of new land for cultivation in the Erchun District, in *Liye Qin jiandu*, vol. 2, 21-23, tablet 9-15.

[230] Yan Changgui and Guo Tao, "Liye Qin jian suojian Qin Qianling xian xiangli kao," 148; Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 208-212.

[231] *Liye Qin jiandu*, vol. 2, 268, tablet 9-1143+9-2170.

Yang Ward, and one of the Shang Ward 尚里, suggesting the latter one, which was previously unknown, was also part of the Town District (see Table 3.4).[232]

Unfortunately, the document that mentions all three wards of the Town District is undated. So is another text that summarizes the population of a certain town (*yi* 邑) composed of two wards that were home to 61 households.[233] Although the settlement is not named, it is reasonable to assume that the term *yi* refers to the county town.[234] The number of households is also close to what can be reconstructed for the Town District on the basis of other population numbers recorded in the Liye texts (see Appendix A). It may therefore be surmised that the number of wards in the Qianling county town changed over time. One may speculate that the single mention of Shang Ward is explained by the relatively short period of its existence. Indeed, the ward or village population of close to 30 households was considered typical in Qianling, so a settlement of 60 households hardly warranted three wards.[235] The temporary establishment of an extra ward could have had to do with the local government's plans to bring in more population to the county town, the project that might not have been fulfilled.

The Town District is the only one of the territorial subunits of Qianling County whose location can be identified with precision. That of the other two districts, Qiling and Erchun, can be

[232] *Liye Qin jiandu*, vol. 2, 410-411, tablet 9-2051. Only the upper part of the tablet is preserved, and the lower of the three extant registers of text is poorly legible (for the photograph of the tablet, see *Liye Qin jian*, vol. 2, 220). The last graph in the leftmost line in the bottom register is *shi* 食, which may indicate that the text on this tablet is a name list of individuals who were receiving food rations from the government.

[233] *Liye Qin jiandu*, vol. 1, 297, tablet 8-1236+8-1791.

[234] Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 209-210.

[235] On one occasion, the Qianling county authorities reproached the head of Qiling District for applying for appointment of a community chief (*li dian* 里典) while a group of 27 households already had one, see *Liye Qin jiandu*, vol. 1, 94-95, tablet 8-157. Apparently, at least in Qianling County, 27 or so households were considered as a normal population for a community (ward or village).

established only in relation to the county seat. Of particular value are the records of delivery time for the documents exchanged between the county authorities and the districts. The available records for the Qiling district vary between as little as two and as much as eight days.[236] Such enormous discrepancy can be partly explained by the different modes of document delivery and varying weather conditions: heavy rains, for example, were legally recognized as a legitimate reason for substantial delays in official communication (see Chapter 5). Some delivery delays were tolerated for most of the government documents, except the most urgent ones.[237]

Documents offer some clues to the geographic location of Qiling District. We know that it was an important node in the communication network. The district maintained a post relay station (*you* 郵) and associated personnel.[238] The post relay employed runners who delivered urgent documents on foot.[239] At the beginning of the Western Han, they were legally required to travel 200 *li* (approx. 83.2 km) in twenty-four hours.[240] The norm may have been even higher under the Qin which is known to have demanded greater travel speeds than at the beginning of Western Han (see Chapter 5 for a more detailed discussion). Assuming that the shortest delivery time on record, two days, was achieved by relay runners and applying the early Han speed standard, we would assume an overland travel route of some 160 km at most between Qianling county town and Qiling

[236] The data is summarized in Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 214, table 4-2. This does not include the new data published in the second volume of the Liye materials, which falls within this time frame. In the three instances where such information is available, document delivery from Qiling to the Qianling county town took 3, 5, and 2 days. See, respectively, *Liye Qin jiandu*, vol. 2, 42-43, tablet 9-30; 52-53, tablet 9-48; and 126-127, tablet 9-450.

[237] See Tang Junfeng, "Qin dai Qianling xian xingzheng xinxi chuandi xiaolü chutan," 191-230.

[238] See, for example, *Liye Qin jiandu*, vol. 1, 94-95, tablet 8-157; vol. 2, 280, tablet 9-1237.

[239] For a recent discussion of the post relay system in the early Chinese empires, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 729-737.

[240] *Ernian lüling yu Zouyanshu*, 203, slip 273; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 740-741.

District. It was probably much shorter due to delays and lower than required travel speeds. The distance as the crow flies was of course much shorter yet. According to Qin regulations, even when water transportation was available, official documents had to be delivered overland by runners, which should have considerably increase a travel distances in mountainous regions such as Western Hunan.[241]

We also know that Qiling was located approximately half way between the seat of Qianling County and that of its neighbor to the east, Youyang 酉陽 County (see Map 3.5). A delivery record excavated at Liye mentions a document that was sent from Youyang to Qianling by post relay on March 8, 219 BCE, and passed Qiling on March 11.[242] Another similar record indicates that post relay delivery between Youyang and Qiling also took three days.[243]

Other Liye texts also point at the spatial proximity between Qiling District and Youyang County. One fragmentary document, for example, mentions a Qiling woman who married a resident of Youyang and moved to her husband's location, resulting in the need to transfer her household register to Youyang.[244] Another document refers to a debtor laborer stationed at Youyang, who was travelling to Qianling and whose horse died on the way. He reported the incident to the head of Qiling District where the incident probably happened.[245]

The importance of Qiling in the administrative geography of Qianling County was likely determined by its role in the transportation and communication system. Documents sent by the

[241] Tang Junfeng, "Qin dai Qianling xian xingzheng xinxi chuandi xiaolü chutan," 199.

[242] *Liye Qin jian bowuguan*, 62, tablet 12-1799.

[243] *Liye Qin jian bowuguan*, 62, tablet 12-1798.

[244] *Liye Qin jiandu*, vol. 2, 256, tablet 9-1095.

[245] *Liye Qin jian*, vol. 2, 479-482, tablet 9-2346.

county authorities to their superiors at the Dongting Commandery office and the opposite way passed through Qiling.[246] Many of Qiling-related documents in the county archive have to do with delays in official communication or the use of wrong communication routes.[247] The permanent population of the district was meager even by the measures of Qianling County. The registered population in 213 BCE was 28 households,[248] all of whom resided in one village, the Cheng 成里, which had 27 households in 215 BCE.[249]

The last one of the Qianling districts, Erchun, also possessed a distinct administrative and economic physiognomy. Unlike Qiling, it was not located on a communication route, so there is no record of inter-county correspondence passing through this district. The document delivery time between Erchun and the Qianling county town varied just as greatly as in the case of Qiling. While on one occasion an evaluation (*ke* 課) of damaged district property was delivered on the same day when it was dispatched, other deliveries could take as long as six days.[250] Only in one recorded case documents were dispatched by post relay.[251] As in the case of Qiling, such enormous discrepancy challenges any attempt to assess the actual distance between the two locations. The

[246] See, for example, *Liye Qin jiandu*, vol. 2, 142, tablet 9-486; 194, tablet 9-730.

[247] See, for example, *Liye Qin jiandu*, vol. 2, 231, tablet 9-963; 335, tablet 9-1609; 441, tablet 9-2259.

[248] *Liye Qin jiandu*, vol. 1, 172, tablet 8-518.

[249] *Liye Qin jiandu*, vol. 1, 94-95, tablet 8-157.

[250] Data from the five delivery records for Erchun-Qianling correspondence published in the first volume of Liye materials is summarized in Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 219. To this a fragmentary record from layer 9 can be added that seems to indicate a document delivery between Erchun and one of the Qianling county offices, presumably located within the county town, within two days. See *Liye Qin jiandu*, vol. 2, 440, tablet 9-2256. The average delivery time for these six records is 3.66 days.

[251] *Liye Qin jiandu*, vol. 1, 284, tablet 8-1147.

possibility of delivery on the same day, however, implies that Erchun was spatially closer to the county seat than Qiling, for which the shortest recorded delivery time was two days.[252]

That Erchun was located not in the same direction from Qianling county town as Qiling District is also implied by the above-translated document fragment that specifies that the copies of Dongting governor's circular had to be dispatched to the two districts "separately" (*bie* 別).[253] Other Liye documents make clear that this word was used to indicate distinct delivery routes.[254] This means that Erchun was probably not located to the east of the county town. To tentatively identify its location, it may be helpful to look at the specific features of this district.

First, Erchun appears to have been rich in natural, particularly wildlife resources. Since the topic is discussed in more detail later in this chapter, suffice it here to say that Erchun was the place where bird feathers[255] and furs were procured,[256] where the fruit of raisin tree (*zhigou* 枳枸) were collected,[257] and which was specifically expected to submit exotic wildlife items, such as rare

[252] For this conclusion, see Yan Changgui and Guo Tao, "Liye Qin jian suojian Qin Qianling xian xiangli kao," 149.

[253] *Liye Qin jiandu*, vol. 2, 448-452, tablet 9-2283.

[254] *Liye Qin jiandu*, vol. 2, 374-375, tablet 9-1861.

[255] *Liye Qin jiandu*, vol. 1, 199-200, tablet 8-673+8-2002+9-1848+9-1897 (the document was initially reconstructed from the two fragments from layer 8, to which additional two fragments from layer 9 were added later, see Liye Qin jiandu jiaoshi xiaozu, "*Liye Qin jian (er)* jiandu zhuihe xubiao" deng wendu houji," accessed December 20, 2018); 343, tablet 8-1515; vol. 2, 43-45, tablet 9-31.

[256] *Liye Qin jiandu*, vol. 2, 569, tablet 9-3311.

[257] *Liye Qin jiandu*, vol. 1, 153-154, tablet 8-455; 350, tablet 8-1527. I follow the editors of *Liye Qin jiandu* in identifying *zhigou* with *zhiju* 枳椇, the plant mentioned in the *Mao Commentary to the Classic of Poetry* (*Mao shi zhuan* 毛詩傳, probably compiled in the 3rd century BCE). See *Liye Qin jiandu*, vol. 1, 153-154, n. 1. On the basis of its detailed descriptions in the latter medical anthologies, including the late Ming *Compendium of Materia Medica* (*Ben can gangmu* 本草綱目, first draft completed in 1578 CE, first edition published in 1593 CE), this plant has been identified as *Hovenia dulcis*, or oriental raisin tree, found in East Asia, particularly in Eastern and Southern China. See Francine Fèvre and Georges Métailié, *Dictionnaire Ricci des plantes de Chine* (Paris: Association Ricci – Les Éditions du Cerf, 2005), 578.

plants, which had to be sent to the imperial court as tribute (*xian* 獻).[258] Erchun was also known for its lac trees that were cultivated in special orchard (*qi yuan* 漆園), from which the lacquer sap was supplied to the workshops in the county town.[259]

Second, Qianling documents clearly indicate that even by the low security standards of the "new territories" Erchun was a dangerous place. In the previous section, a document has been translated concerning "bandit" activity in the vicinity of a guard post (*ting* 亭) in Qianling County.[260] This post, named Tang 唐, was located in Erchun. At least one other guard post, also named Erchun, was located in the district.[261] A third guard post mentioned in the Liye documents, named You 酉, was probably also located in Erchun.[262] No such posts are so far recorded for the other two districts, suggesting Erchun was the place where much of the county's security force was concentrated. It was so for good reason as the texts record permanent hostile activity in the area. In 213 BCE, for example, grain was shipped to Erchun in order to supply military force preparing to take action against "bandits" (*bei daozei* 備盜賊).[263] At the end of the following year the district was involved in organizing the issue of rations on the request of a military commander

[258] *Liye Qin jiandu*, vol. 2, 79-80, tablet 9-165+9-473 mentions that the Qianling county Office of Tribute (*xian guan* 獻官) dispatched officials and servicemen to Erchun in search for a *yi* 薏 plant, which they were eventually unable to identify. *Yi* is the ancient name of the lotus seed (*Nulembo nucifera* Gaertn.) attested in the *Erya* dictionary, see *Dictionnaire Ricci*, 545. Lotus seed was valued for its medical properties, see *Dictionnaire Ricci*, 273.

[259] For the Erchun District supplying lacquer sap to the Qianling county town, see *Liye Qin jiandu*, vol. 1, 355, tablet 8-1548; vol. 2, 267, tablet 9-1136. For lac tree orchard(s), see, for example, *Liye Qin jiandu*, vol. 1, 141, tablet 8-383+8-484.

[260] *Liye Qin jiandu*, vol. 2, 260-261, tablet 9-1112.

[261] *Liye Qin jiandu*, vol. 1, 279, tablet 8-1114+8-1150. For the Erchun District as the location of Tang Post, see also Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 225.

[262] *Liye Qin jiandu*, vol. 2, 440, tablet 9-2256.

[263] *Liye Qin jiandu*, vol. 2, 54-55, tablet 9-50.

in charge of an emergency levy (*ben ming wei* 奔命尉), which was most likely caused by some serious threat.[264] Erchun is also recorded as a place where weapons were concentrated.[265]

This evidence seems to suggest that Erchun was located at the frontier of Dongting Commandery that was facing the Wuling Mountains. One proposed location is the mountain plateau of Bamianshan 八面山 to the north-west of Liye, which is still known for its lacquer trees (see Illustration 3.3[266]).[267] Although any attempts to identify the location of Erchun District with more precision would be guesswork, it stands to reason that the district was immediately surrounded by mountains rich in plant and animal resources and populated by unmapped indigenous tribes that challenged the Qin control over the area. It was also the terminal point for any official communication.

[264] *Liye Qin jiandu*, vol. 2, 261-262, tablet 9-1114. It is unclear whether this levy can be related to the emergency levies addressed in the statute from the Yuelu Academy collection, which specifies the threats countered by such levies as invasions by the "bandits from outside the old frontier," see *Yuelu shuyuan cang Qin jian*, vol. 4, 126-127, slips 177-178.

[265] *Liye Qin jiandu*, vol. 1, 341, tablet 8-1510.

[266] Source: photograph taken by the author during his visit to Liye on April 28, 2011.

[267] See Ma Benli 馬本立, ed., *Xiangxi wenhua dacidian* 湘西文化大辭典 [*Dictionary of Xiangxi culture*] (Changsha: Yuelu shushe, 2000), 204; Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 221.

Illustration 3.3: The present-day view of the Bamianshan from the You River valley

The district population was about 60 households, although this number probably changed over time as the Liye documents mention some resettlements related to Erchun.[268] These households were distributed across two or maybe three villages (*li* 里): Nan 南, Dongcheng 東成, and possibly Yu 輿.[269] The location of neither of these villages is known. One of them probably

[268] For the Erchun population numbers in 213 and 212 BCE, see *Liye Qin jiandu*, vol. 2, 173, tablet 9-661 and *Liye Qin jiandu*, vol. 1, 381, tablet 8-1716, respectively. The latter number is aggregate (*ji* 積) and should be divided by the number of days in a year to arrive at an average number of households in the district over the year. For a fragmentary record on what appears to be a resettlement of some individuals from Erchun District, see You Yifei and Chen Hongyin 陳弘音, "Liye Qin jian bowuguan cang di shi zhi shiliu ceng jiandu jiaoshi" 里耶秦簡博物館藏第十至十六層簡牘校釋 [Edited and annotated documents from the tenth to sixteenth layers from the Liye Museum of Qin Documents], in Zhou Dongping and Zhu Teng, eds., *Falü shi yiping*, vol. 4 (Shanghai: Zhongxi, 2017), 26, tablet B9-581.

[269] For the Nan Village, see *Liye Qin jiandu*, vol. 2, 21-23, tablet 9-15. The residents of this village frequently appear in the Liye documents, particularly with regard to the labor and military levies, see, for example, *Liye Qin jiandu*, vol.

housed the office of the district head. The following table summarizes the administrative geography of Qianling County.

Table 3.4: Administrative geography of Qianling County

District name	Location	Characteristics	Population	Communities
Town District	You River valley around the present-day Liye township	County town and its environs	61 households	Gao Ward Yang Ward Shang Ward
Qiling	East of Liye, probably along the You River	Node in official communication system	27-28 households	Cheng Village
Erchun	North of Liye, possibly near Bamianshan Plateau	Military forepost, wildlife and timber resources	60 households	Nan Village Dongcheng V. Yu Village

The administrative geography of Qianling County sheds some light on the spatial configuration of the Qin state presence to the south of the Yangzi. The county town was located

2, 286, tablet 9-1290; 337, tablet 9-1623; 395, tablet 9-1929. For Dongcheng Village as part of Erchun District, see *Hunan chutu jiandu xuanbian*, 116, tablet 10-1157. Fragments of household registers from this village were excavated at Liye, see *Liye Qin jiandu*, vol. 1, 388, tablet 8-1765; vol. 2, 157, tablet 9-567; 408, tablet 9-2037+9-2059. A fragment of a private letter sent by a Dongcheng resident was also discovered, see *Liye Qin jiandu*, vol. 2, 573, tablet 9-3356. Yu Village is more ambiguous as there is no direct evidence for it belonging to Erchun District. Yan Changgui argues that this is implied by the fact that a Yu resident was employed as a courier for delivering a document that originated in Erchun, the above-mentioned report on the "bandit" activity near the Tang guard post, see Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 225. However, this village could have also belonged to another district in Qianling County. Residents of this village are also frequently mentioned in the Liye documents, see, for example, *Liye Qin jiandu*, vol. 2, 289, tablet 9-1315; 345, tablet 9-1667; 350-351, tablet 9-1707.

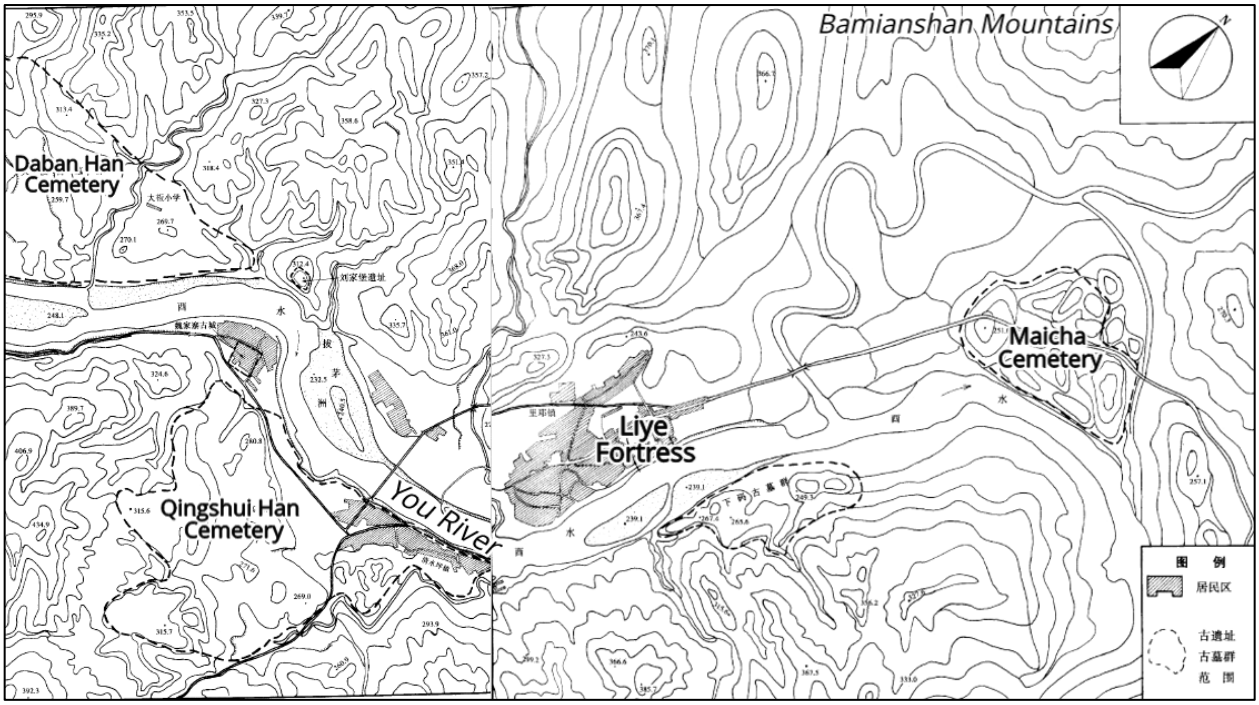
on the bank of a major local river and in the middle of a plain flanked by the low hills (see Illustration 3.4).[270]

Illustration 3.4: The Qin fortress at Liye, view from the southern bank of the You River

Most of the county's population, including permanent residents, officials, and military were concentrated in this place, which was also the main center of agricultural production. Proximity to the river facilitated imports of materials and moves of people. The choice of the county seat was usually defined by the existing distribution of population, although the government could and often did intervene through organized resettlements (see below). In the case

[270] Source: photograph taken by the author during his visit to Liye on April 28, 2011.

of Qianling, the town was already in place by the time the Qin troops appeared on the banks of the You River. The large cemetery at Maicha 麥茶, some 1.5 km to the north-east of the town walls, is dated from the late Warring States period and indicates the presence of a mixture of indigenous population and Chu colonists (see Map 3.6).[271]



Map 3.6: Archaeological sites at Liye

Outside the county town, the distribution of permanent enclaves of state presence was dictated by considerations of security and communication logistics. As the Qianling fortress was founded to seal the access to the Yuan River basin along its western tributary, the You River, so the You River valley itself had to be protected against the uncontrolled and often hostile tribal

[271] Archaeologists already identified some 300 tombs in the Maicha cemetery, of which 236 excavated in May-June 2002 are included in the Liye excavation report, see *Liye fajue baogao*, 240-373. Map 3.6 is based on *Liye fajue baogao*, 6-7, map 3.

populations inhabiting the neighboring mountain plateaus such as the Bamianshan that historically served as bases for raiding the agricultural populations of the lowland.[272] The government's military effort to defend the county's heartland was coordinated by the districts such as Erchun, which could directly contact commandery-level military authorities in case of emergency. The government moved the farmers into such areas in order to facilitate provisioning the troops and to create a local pool of recruits.

Districts were also established at crucial communication and transportation junctions, as appears to have been the case of Qiling. In such areas, roads, bridges, fords and other transportation infrastructure had to be maintained with particular diligence, which was the responsibility of both the local population and convict labor gangs. The latter as well as the travelers passing through the area had to be supplied with food rations. Moving people to such places would be necessary not only to grow crops and repair roads but also to staff and carry out the upkeep of post relay stations.

Settlements and communities

The Qin fortress at Liye is probably the best-excavated county town from the Qin imperial period. The rectangular fortress was built on the northern bank of the You River in the late Warring States period when the area passed under the Chu administration. Only part of the settlement is preserved after the south-eastern section was washed away by the river. The town was first

[272] Bamianshan plateau remained beyond government control until 1960-s. It served as a permanent base for powerful gangs that extracted regular tribute from the farmers in the You River valley. The government classified all such groups as "bandits" (*tufei* 土匪), but their continuous presence in the area, large numbers, effective control over relatively large territories, systematic extraction of tribute from the local populace with subsequent distribution among their members imply a more or less stable organization of territorial and population management, financial administration, and administration of justice, which made these gangs akin of a quasi-state. The evidence of their presence is scattered across the plateau, and assumedly other mountainous areas in Western Hunan, in the form of fortified hideouts inside the caves, which the author was able to observe on his two visits to Bamianshan in 2011 and 2015. According to the oral testimony of local farmers on the plateau, the "bandits" were finally defeated and driven away from the area in late 1950's and early 1960's.

discovered in 1996, and initial archaeological survey was conducted in 2000. Excavation followed in 2002, in the course of which the Qin archive was discovered.[273]

The extant parts of the town wall enclose an area of approximately 20,000 sq.m. The wall is constructed of pounded earth, a technique used in fortification building since the Neolithic. Its massive dimensions point to the complex security situation in the area:[274] the width of the wall foundations reaches 26.5 m, and the extant height of the walls approximates 3.5 m. Ceramic vessel shards excavated from the wall suggest a late Warring States construction date contemporaneous with the Maicha cemetery.

The wall was surrounded by a moat 15 m wide and 6.5 m deep. The water in the moat was provided by the Xikou 溪口 River, a tributary of the You River that later changed its course. The ancient riverbed some 40 m wide is still discernable today. During the first and second periods of site occupation, coinciding with the late Warring States and the Qin imperial period, there was only one permanent earthen bridge across the moat leading to the southern gate of the fortress.[275] During the Western Han period, another permanent earthen bridge was built across the western section of the moat, and probably also a wooden bridge across the northern section. A stone-paved road was laid between the moat and the wall. These developments may be interpreted as a marker of improved security conditions under the Western Han.

The 5,500 sq.m of excavated area within the walls provide important evidence for the dating and history of the site. The original late Warring States and Qin settlement suffered large-

[273] *Liye fajue baogao*, 5-8. The following description of the archaeological remains of the Qianling county town is based on the archaeological report in *Liye fajue baogao*, 11-239.

[274] This observation is made in *Liye fajue baogao*, 232.

[275] For the periodization of the site, see *Liye fajue baogao*, 32, table 1.

scale destruction and burning at the end of the second period of site occupation. Sometime in the early decades of the Western Han, the area within the walls was levelled out to facilitate rebuilding of the town. The demolition at the end of Qin was most likely at the hands of the rebel forces that overran the area already at the early stages of the rebellion. It may be useful to remind the reader that the latest documents in the Qianling county archive are dated from 208 BCE, which was probably the year when the Qin administration here collapsed.

The space inside the walls was structured by the two crossing roads approximately 13 m wide running in east-west and north-south directions. The reported building remains primarily date to the Han period, with the exception of six wells, in one of which the Qin administrative documents were deposited. Archaeologists identified two rows of post-frame constructions along the north and south walls of the town, which may have served as storage facilities. A larger building dating from the Han period, reconstructed in the archaeological report (see Illustration 3.5),[276] could have been the county government office.

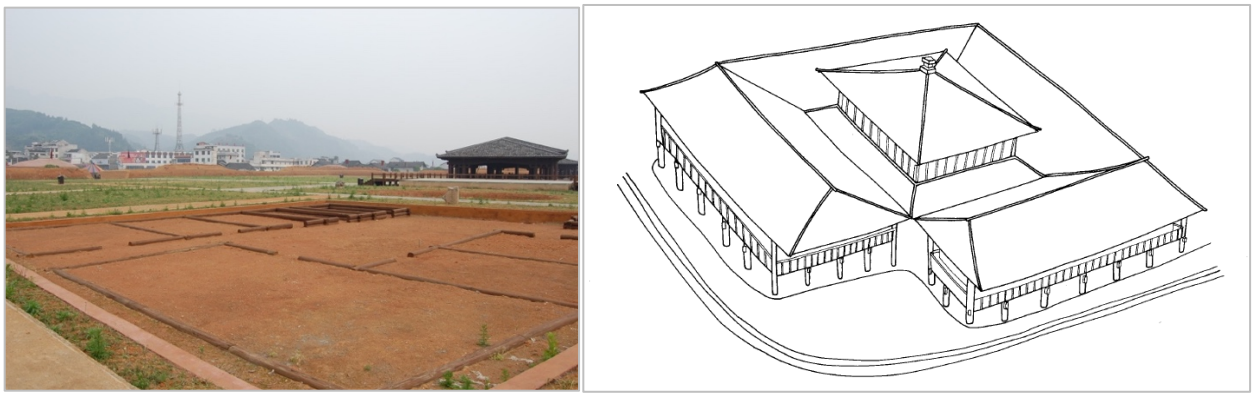


Illustration 3.5: Reconstruction of building F4 (county government office?) at the Liye site

[276] Photograph of the reconstructed building foundation was made during the author's visit to the Liye site on April 28, 2011. Reconstruction of the building is borrowed from *Liye fajue baogao*, 62, image 46.

The site also yielded the remains of ceramic kilns, ditches and trenches, and pits, some of which were probably ash pits for domestic refuse while others were used for earthenware production. Some of the latter were discovered inside the moat, suggesting it was filled with water only periodically, probably when the town was under threat. While there is much continuity in ceramic types from the first to the second period of site occupation, the Qin arrival is archaeologically marked by the appearance of new types of ceramic objects such as *pan* 盘 dishes and ceramic weights (*tao liang* 陶量), and the disappearance of some Chu-style vessels such as *fu* 釜 cauldrons and *gui* 簋 tureens. The authors of the archaeological report suggest that some potters familiar with Qin tastes for kitchenware and other ceramics arrived together with the Qin troops and administrators and may have contributed to the development of some ceramic production facilities.[277]

Continuity and change in the ceramic assemblages at the Liye site points at relocations and changes in the composition of the local population that accompanied the Qin conquest, sometimes on an enormous scale. The Qin presence in the area was too brief to leave mortuary evidence that is used to trace the directions of Qin colonization elsewhere (see Chapter 2). One may doubt if the number of Qin colonists arriving in the You River basin was significant, or even how much they were "Qin." As already discussed in this chapter, military servicemen stationed in the "new lands" were often arriving from the commanderies with a mixed population such as Nan Commandery to the north of the Middle Yangzi. While the imperial administrators were sometimes drawing a difference between "Qin" and "Chu" subjects (see below) and between the *huaxia* and the local

[277] *Liye fajue baogao*, 229.

tribal people, the "Qin" probably indicated immigrants from the "old" Qin commanderies (see Map 3.4) regardless of their actual origins and identities.[278]

This said, the arrival of colonists was probably taking place, and it was accompanied by substantial reshuffling of the Qianling county population. The 28 household registers inscribed on wooden tablets originally 46 cm (2 *chi*) long were excavated from the northern section of the Liye moat. The text on 22 of these is still fully or partly legible. Each register lists the members of one household of Nanyang 南陽 *li* (village of ward). Of 15 registers where such information is available, 14 referred to the households headed by Jing 荆, i.e., Chu individuals, and only one did not specifically indicate the person's origins, suggesting he was a "Qin" person.[279]

These household registers have been extensively discussed in literature,[280] yet a number of essential questions concerning their nature and background remain unresolved. First of all, they were the only documents found in the moat and not in the well. Second, the Jing identity marker that looms so large in these texts does not appear anywhere else in the published Liye documents. Third, the Nanyang community to which all these households belonged does not appear among the villages and wards attested by other documents in Qianling archive.

[278] The relationship between the official classifications of households as "Qin" or "Chu" and the identity of respective individuals requires a more thorough investigation in future, as does the question of the identity of Qin colonists and mixed populations in the territories conquered by the Qin in the late Warring State period. For the formation of regional identities associated with particular polities of the Warring States era, see Shelach and Pines, "Secondary State Formation," 202-229.

[279] *Liye fajue baogao*, 203-208.

[280] For a recent English-language study and overview of the literature, see Sanft, "Population Records from Liye," 249-269.

With regard to the latter question, a hypothesis has recently been proposed by Yan Changgui 晏昌貴.[281] He suggests that Nanyang was the Chu community that the Qin authorities split into two, the Nan 南 and Yang 陽. As stated above, the former one was a village in Erchun District and the latter, a ward in the Qianling county town. Yan supports his hypothesis with an observation that some of the Nanyang *li* householders are attested elsewhere in the Liye documents as the residents of, alternatively, the Nan and Yang communities. A man named Qiang 彊 (household register #1) is mentioned in one document as a resident of Nan Village.[282] If this is indeed the same person, his Nan Village residence should postdate his registration as a Nanyang *li* householder since in the latter he figures as a *bugeng* 不更 (4th) rank-holder, but he already had the rank of *dafu* 大夫 (5th) by the time he was recorded as a Nan resident. Also, and importantly, Qiang is no longer singled out as a "Jing" person. Another individual, named Yue 説 (household register #8), was a younger brother of a Nanyang *li* householder. A person with the same name appears in another document as an adolescent (*xiao* 小) resident of the Yang Ward.[283]

Not all scholars agree with Yan's reconstruction. Robin D.S. Yates points out that the repertoire of given names reflected by the excavated Qin documents was relatively limited, so it was not unusual for two or more different individuals living at the same time and place to have the

[281] Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 228-231.

[282] Yan reconstructs the document from the three fragments, 8-238, 8-585 and 8-2476, see Yan Changgui, "Liye jiandu suojian Qin Qianling xian xiangli yanjiu," 231. The suggestion that fragments 8-238 and 8-585 belong to the same document was also made by He Youzu 何有祖, "Liye Qin jiandu zhuihe (wu)" 里耶秦簡牘綴合（五） [Reconstruction of the Qin documents from Liye, part 5], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=1704, accessed December 14, 2018.

[283] *Liye Qin jiandu*, vol. 1, 412, tablet 8-1972. Note, however, that Yue was already old enough to make a legal statement (*ci* 辭), probably as part of a judicial process. Yet another Liye document mentions (the same?) adolescent Yue recruited by the county commandant (*wei* 尉) as a "robber-catcher" (*qiudao* 求盜). See *Liye Qin jiandu*, vol. 1, 420, tablet 8-2027.

same name.[284] The possibility of two such coincidences for a very small group of people such as Nanyang *li* appears to be somewhat smaller, but of course it cannot be completely ruled out. However, if the conjecture about the relatively early date of the Nanyang registers is correct, one may further elaborate on Yan's hypothesis by observing that the disappearance of the "Jing" identity marker coincided with the breakup of Nanyang Community. While its original whereabouts is unclear, part of its residents ended up in the county town while another part was settled at the county's perilous frontier. The reliability of the former Chu subjects could not be taken for granted, but the deployment of various groups of questionable loyalty to the imperial government was characteristic of the frontier strategy in the early Chinese empires.[285] The rationale was probably that when confronting the "barbarian" enemy, such people would have little choice other than to rally around the Qin authorities who organized the defense.

The newly established communities were likely composed of both the original Chu settlers and the colonists arriving from outside of the area. I conjecture that, in view of the Qin administrators responsible for keeping household records, reshuffled composition of population in the newly formed communities and its physical relocation probably rendered former identities irrelevant. This would explain the lack of mention about the Jing/Chu identity of individuals in the main body of excavated Qianling documents. As to the outdated registers, they did not find the way into the county archive (that was eventually deposited in the Liye well no. 1) and were discarded in the moat.

[284] Yates, personal communication.

[285] Examples from the Qin period already mentioned in this dissertation are the criminals stationed in the newly conquered regions and frontier soldiers working off their fines, debts, and criminal sentences.

If correct, this reconstruction of the settlement dynamics in Qianling County sheds new light on the nexus of identity management, community building, and territorial control on the Qin imperial frontier. The local government needed population at specific locations important from the logistical and security points of view. It is unlikely that left to their own means, local farmers and colonists would have called home such places as Erchun District. By dissecting local communities and constructing new ones from a mixture of locals and arriving migrants, the Qin administrators not only reduced the resistance to state-organized relocations but also, so they believed, contributed to the formation of a new hybrid identity that rendered obsolete the identity markets from the Warring States era, at least insofar as the populations under government's effective control were concerned.[286] Needless to say, in the lack of further source materials, this reconstruction remains a conjecture, which, in my opinion, accounts for the presently available evidence.

The rapid and thorough destruction of the Qin administrative center in the You River basin soon after the beginning of the uprising in the south casts doubt on the success of these policies. The state presence here was too superficial, and the enclaves of its control too small to survive once the greater edifice of the empire began to crumble. Yet, understaffed, permanently threatened by hostile invasions, and relying on the inadequate agricultural base, the Qin officials in Qianling tried hard to explore and tap into the local resources in order to make this place relevant to the empire's political economy.

[286] On the imperial level, the attempt to construct a new universal identity for imperial subjects is manifest in such actions as the introduction of a new official naming for all commoners within the borders of the empire, "the black-headed ones," and in the celebration in the Qin stele inscriptions of benefits the imperial unification brought to the entire humankind regardless of regional origins and identities.

3.2. Resources

As elsewhere in the empire, the local Qin administration in mountainous Western Hunan was preoccupied with extracting, transforming, and transporting local resources for the purposes of maintaining the state presence in the area and contributing to imperial projects, be that further territorial expansion or substantiation of the Qin emperor's claim to universal dominance. Arriving in the region that had never before been the part of a northern-based polity and facing unfamiliar environment, officials relied on the resource-management blueprints elaborated by the mid-Warring States Qin reformers while doing their best to make use of local knowledge in order to answer the central government's demands.

As we already saw, the quest for resources was one factor in the territorial distribution of the Qin presence in the upper You River basin. Resources were not a mere fact of nature. They had to be not only found and extracted but in the first place defined. The Qianling archive mentions a variety of domesticated and wild plants and animals, which were of interest to the local government as exploitable resources. The region to the south of the Middle Yangzi was also home to some important metal deposits, and mining looms large in the Liye documents. Without claiming to present an encyclopedic treatment of the material resources of Qianling County, I focus on some of the most important ones. This discussion serves to illustrate the interplay between empire-building and economic management. On the following pages, three types of resources will be considered: agricultural crops, wildlife (animals, birds, and fish), and metals. Some other issues of relevance, such as textile production, will be explored in the following chapters.

Agricultural resources

In the evening of September 28, 209 BCE, just a few months before the rebels stormed and burned the Qianling county town, a temporary supervisor of the Office of Fields (*tian guan* 田官), named Qu 灈, personally came to the county court to submit the evaluation of agricultural fields brought under cultivation that year (*ken tian* 豤田). He drafted the document earlier that day.[287] It is a bit unusual that Qu decided to bring it in person, since correspondence was usually delivered by the office assistants (*zuo* 佐) or scribes (*shi* 史), not by the head of the office.[288] The eighth month when office accounts and evaluations had to be submitted was approaching its close (it was the 21st day of the month), so Qu might have just been willing to make sure in person that the document was accepted. Alternatively, his arrival may betray the disruption in the administrative routine that foreshadowed imminent disaster. We will probably never know.

What is more certain is that his report was part of the powerful tradition of economic management that emphasized agricultural land as the pivotal resource and made its expansion the top priority for government officials. One of the early chapters of the *Book of Lord Shang*, which may offer a glimpse to "the mindset of Shang Yang and like-minded reform statesmen at the outset of reforms,"[289] is pervaded with the idea about the cultivation of wastelands as the sole goal of socio-economic policy.[290] The Qin law resonated with this dictum:[291]

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[287] *Liye Qin jiandu*, vol. 2, 377, tablet 9-1865.

[288] For the case of the Office of Fields, see, for example, *Liye Qin jiandu*, vol. 1, 199, tablet 8-672; 362, tablet 9-1566.

[289] Pines, *The Book of Lord Shang*, 124-125.

[290] *Shangjun shu zhuizhi*, 1.6-19; translated in Pines, *The Book of Lord Shang*, 123-131. For the early date of this chapter, see Pines, *The Book of Lord Shang*, 52-53.

[291] *Liye Qin jiandu*, vol. 2, 49, tablet 9-40.

律曰：已狠田，輒上其數及戶數，戶嬰之。

> The statute states: When the fields have been brought under cultivation, immediately report [the higher authorities] their number and the number of households [within the respective administrative unit], and distribute [the fields] to households.

Such reports were indeed submitted by the county authorities on an annual basis, as attested by the account of the fields opened up in Qianling in the 35th year of the First Emperor of Qin (213/212 BCE) translated and discussed in Appendix A.[292]

While private individuals were encouraged to open up land for cultivation (see Chapter 6), the government directly contributed to the expansion of arable by deploying convicts and other dependent laborers for agricultural works. A fragment of another Qianling document refers to, or requests the assigning of laborers (*tu* 徒) in order to "expand the fields" (*yi tian* 益田).[293] The opening up of new agricultural land was probably among the routine tasks for the convicts working for the Office of Fields, a major employer of unfree labor in Qianling County (see Chapter 4).

Very few, if any, of the state-dependent laborers whom we find in Qianling were local residents. While such information is rarely available for the convicts, many debtor laborers originated from very distant places. Some were coming from the northern heartland of Qin, while others arrived from Sichuan and the Hanzhong region in the upper reaches of the Han River. What kind of agriculture were these people used to, and how did their deployment in the government's agromanagerial projects affect the local economy and ecology? The evidence is scattered across the large number of fragmentary Liye documents, whose meaning is often debated, so the answer

[292] *Liye Qin jiandu*, vol. 1, 345-347, tablet 8-1519.

[293] *Liye Qin jiandu*, vol. 2, 96, tablet 9-258.

can hardly be definite. Yet, the available data sheds some light on the composition of agricultural resources in the Qin South. Appendix B discusses this evidence.

With this information in mind, let us now approach the Qianling County data. No finds of agricultural crops have so far been reported either for the Liye settlement site nor for the surrounding cemeteries (see Map 3.6), so I will focus on the written evidence provided by the Qianling archive documents. It reinforces the picture of crop diversity provided by the archaeological evidence from the Middle Yangzi region. The texts mention various types of rice and millet along with wheat, beans, and taro (*yu* 芋).

Rice (*dao* 稻) figures among the frequently mentioned crops. The largest volume that appears in the documents is 81 *shi* (ca. 1,620 liters) of rice.[294] Scholars suggest that the graph 𥏒 that appears in two other documents[295] should be read as *nuo* 稬, which, according to the first century CE dictionary *Shuowen jiezi* 說文解字 was a word for rice used in the Pei 沛 dialect.[296] Glutinous rice *nuo* 糯 is mentioned in yet another fragment.[297] A special granary, the Western Storehouse 西廥, appears to have been partly or fully dedicated to rice storage.[298] On January 24, 221 BCE, just a few months after the area fell under the Qin control, this facility issued 50+ *shi* (over 1,000 liters) of rice (*dao*) for shipment (*shu* 輸) to some unidentified location. The soldiers

[294] *Liye Qin jiandu*, vol. 2, 154, tablet 9-550.

[295] *Liye Qin jiandu*, vol. 1, 238, tablet 8-860; 284, tablet 8-1145.

[296] *Liye Qin jiandu*, vol. 1, 238, tablet 8-860, comm. 1.

[297] *Liye Qin jiandu*, vol. 1, 315-316, tablet 8-1361.

[298] I translate *kuai* 廥 as "storehouse," to differentiate it from *cang* 倉, translated as "granary." It should be noticed that, as far as the Liye documents are concerned, *kuai* storehouses were used for grain storage only, so they were granaries in a strict sense.

escorting the shipment were residents of Yiling 夷陵 County in Nan Commandery (see Map 3.4), but it is unclear if that was the destination of shipment. Interestingly, while in Qianling, these soldiers received their rations in millet (*zisu* 粢粟).[299] Another poorly preserved document records the same storehouse issuing 2 *shi* (ca. 40 liters) of rice at some unspecified date.[300] Finally, yet another small fragment indicates that the Western Storehouse was involved in some operation with rice.[301] Considering that these are the only three documents in the already published part of the Liye archive that mention the Western Storehouse, and that no other storehouses in the county were dealing with rice (see below), it can be concluded that Qianling had one special grain-storing facility for this crop.

The local cultivation of *wheat* (*mai* 麥) is clearly suggested by the record of the Qianling District authorities issuing 4 *dou* (ca. 8 liters) of wheat seeds (*zhong* 種) as a loan to a destitute farmer in 221 BCE.[302] Another documents records the collection of 82.5 liters of wheat in agricultural tax (*mai zu* 麥租), again, implying local production.[303] Wheat, along with peas (*shu* 菽), also appears in the list of official "fair-market prices" (*shi ping jia* 市平價) issued by the Qianling County authorities for the period between mid-November 218 BCE and the early October

[299] *Liye Qin jiandu*, vol. 1, 330-331, tablet 8-1452.

[300] *Liye Qin jiandu*, vol. 2, 503, tablet 9-2543.

[301] *Liye Qin jiandu*, vol. 2, 547, tablet 9-3079. The graph preceding *kuai* ("storehouse") was initially indicated as illegible. It was identified as *xi* 西 ("Western") in Liye Qin jiandu jiaoshi xiaozu, "*Liye Qin jian (er)* jiaodu (san)" 《里耶秦簡（貳）》校讀（三） [Annotated readings (part 3) from the *Liye Qin jian*, vol. 2], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=3127, accessed December 19, 2018.

[302] *Liye Qin jiandu*, vol. 2, 151-152, tablet 9-533+9-886+9-1927.

[303] *Liye Qin jiandu*, vol. 2, 245-246, tablet 9-1039+9-2160.

217 BCE, in which one *dou* (approx. 2 liters) of wheat was priced at 2 cash and one *dou* of peas, at 3 cash.[304]

Peas and beans (*da* 荅) are mentioned in a fragmentary document from layer five of the Liye well no. 1.[305] Unfortunately, the state of preservation of this tablet is so poor that the context of the inscription is unclear.

Millet appears unambiguously in a number of Liye texts. The report on the "fair-market prices" dated from the end of 213 BCE, submitted by the Town District, records the prices on the two varieties of millet: ordinary (*zi* 粢) and glutinous (*shu* 秫).[306] That the government paid attention to monitoring these prices suggests both crops were wide-spread and economically important. *Zi* millet is also mentioned in other Liye documents.[307] Glutinous millet figures in the Qin legal statutes from Shuihudi that prescribe it should not be used "for issuing rations to the people" 秫毋以稟人.[308] Indeed, the Qianling price regulation makes it clear that glutinous millet was priced higher than ordinary millet, 25 vs. 20 cash per *shi* (ca. 20 liters). The reason may have been that glutinous millet was reserved for ale production, as implied by a short, probably private

[304] *Liye Qin jiandu*, vol. 2, 274, tablet 9-1185. Under the Han, "fair-market prices" were determined in the tenth month based on the observation of actual market prices over the preceding period, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 474, n. 2. This may have already been the practice in the Qin Empire, as suggested by another report on "fair-market prices" from the Liye archive. This report, which is going to be discussed in more detail in Chapter 5, was submitted by the Town District of Qianling County on the first day of the eleventh month in the 35th year of the First Emperor (December 19, 213 BCE). See *Liye Qin jiandu*, vol. 2, 253-254, tablet 9-1113+9-1090+9-1088.

[305] *Liye Qin jiandu*, vol. 1, 12-13, tablet 5-19.

[306] *Liye Qin jiandu*, vol. 2, 253-254, tablet 9-1113+9-1090+9-1088.

[307] See *Liye Qin jiandu*, vol. 1, 330-331, tablet 8-1452; vol. 2, 282, tablet 9-1258.

[308] *Shuihudi*, 28, slip 34; Hulsewé, *Remnants*, 40.

message from Liye, which asks for *shu* millet to be provided in wine vessels (*zhi* 卮).[309] The mentions of *su* 粟 collected as agricultural tax (*zu* 租) are most likely referring to the locally grown millet, considering that tax collected in other crops, such as wheat, was specified as such (see above).[310]

Of the specifically southern crops (other than rice), a relatively frequently mentioned one is *taro* (*yu* 芋). A fragment of a private letter excavated at Liye suggests taro was cultivated at the state-managed farms as a substitute for cereal crops,[311] which is confirmed by the registers of convict laborers (*zuo tu bu* 作徒簿), probably, and in one case almost certainly, working for the Office of Fields (*tian guan* 田官), who were assigned the task of taro weeding (*ru yu* 蓐芋).[312] That taro was indeed stored in the state granaries and used to issue food rations, especially in the years of failed cereal harvests, is implied by Xiang Yu's well-known accusation of the Chu commander Song Yi 宋義 of indulging in feasting while his soldiers were surviving on taro and beans (*yu shu* 芋菽) having not seen grain for a long while.[313]

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[309] *Liye Qin jiandu*, vol. 1, 111-112, tablet 8-200+8-296.

[310] *Liye Qin jiandu*, vol. 2, 72-73, tablet 9-128+9-204; 205, tablet 9-785+9-1259 record the collection of 79.1 *shi* (approx. 1,584 liters) in 210 BCE.

[311] 夫為縣館田芋當粟, see *Liye Qin jiandu*, vol. 2, 155-156, tablet 9-563.

[312] For the record that almost certainly originated in the Office of Fields, see *Liye Qin jiandu*, vol. 2, 360-361, tablet 9-1781+9-2298. The first line of the text records that the register was submitted by *tian xiang shou* 田鄉守敬, "the provisional [head] of the Tian (Field) District, [named] Jing," which is almost certainly a scribal mistake, insofar as there was no "Tian District" in Qianling County. The document was most likely submitted by the Office of Fields, whose supervisor, Jing 敬, is well-recorded in other Liye documents, see, for example, *Liye Qin jiandu*, vol. 1, 199, tablet 8-672; 219-220, tablet 8-764; 226, tablet 8-781+8-1102; vol. 2, 49-50, tablet 9-41; 154, tablet 9-552; 201-202, tablets 9-762, 9-763. For another two fragments that can with high degree of certainty be attributed to the registers of convict laborers and that record the weeding of taro, see *Liye Qin jiandu*, vol. 1, 142-143, tablet 8-395; 401, tablet 8-1861.

[313] *Shiji*, 7.305.

While the scattered mentions in the Liye documents provide a notion of the array of agricultural crops cultivated in Western Hunan in the late third century BCE, they do not allow for an assessment of relative importance of these crops in the local economy. However, the Qianling archive contains a group of documents that prove helpful for such evaluation. These are the ration records, of which more than 160 have been published so far. Some of them are fully preserved, while others are but tiny fragments. These texts have been used by scholars to study the system of grain rations issued to the state-employed personnel, including officials, soldiers, and convict and debtor laborers.[314] Here I use this data to examine the composition of the county's grain supplies. Appendix 3 augments the data collected by Miyake Kiyoshi 宮宅潔 with the documents recently published in the second volume of the Liye materials.[315]

Chart 3.1 illustrates the frequency of use of various cereals in grain rations issued by the local government offices in Qianling County. The available data covers the period from 221 to 211 BCE, but dates are available only for 103 records out of the total number of 161. In two more cases, the date notation survived only partly, so one can only be certain the respective documents were drafted in or after the 30th reign year of the First Emperor (217 BCE). While all records originally indicated the type of grain issued, these entries are still extant only in 107 records, of which 9 are undated. Documents also record the names of the issuing offices; list the officials in charge of rations as well as the county scribes who supervised the transaction; name the ration recipients; and, in some cases, specify the granaries from which the grain was released.[316] It should also be

[314] See, for example, Huang Haobo, "*Liye Qin jian (yi)* suojian linshi jilu," 117-139; Miyake, "Seifuku kara senryō tōchi he," 51-85.

[315] Miyake, "Seifuku kara senryō tōchi he," 80-85, table 3.1.

[316] For a detailed discussion of the formulaic structure of ration issuing records, see Miyake, "Seifuku kara senryō tōchi he," 55-67.

noticed that grain in the Qianling granaries was not fully produced locally. Much of it was imported from outside the county (see Chapter 5), so the following discussion concerns not only Qianling but probably also much of the Yuan River basin and maybe beyond.

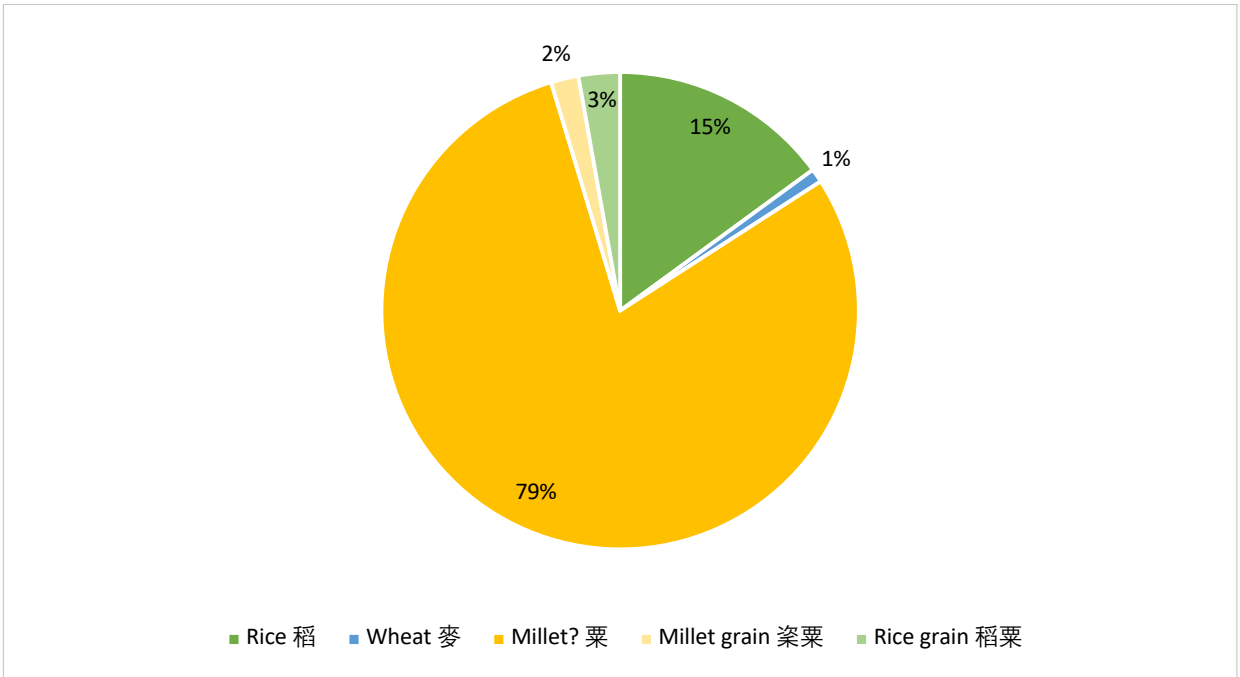

Chart 3.1: Food rations in Qianling County, 221–211 BCE

The chart highlights the problem we already observed for the legal statutes and arithmetic manuals (see Appendix B). 79% of records indicate the type of grain used for rations as *su* 粟. As has been demonstrated, this term can refer both to grain in general and specifically to millet. In any event, in the present case the word was not applied to rice, which appears under its proper name, *dao* 稻. The same probably concerns wheat, although the single mention of this crop in the published ration records makes any generalization problematic. Nevertheless, the alternative use of *su* and *dao* in the vast majority of ration records is probably best explained if we understand the former as a specific type of grain, most likely millet.

As a side note, it should also be observed that all three mentions of *dao su* 稻粟, which can be alternatively rendered as "rice grain" and "rice and millet", and one mention of *zi su* 粢粟, "millet grain" or "*zi* and *su* millet", have a very specific context. These rations were issued by *sishe* 疶舍, probably a special facility for the ill state-dependent laborers.[317] In all four known cases, the ration recipients were debtor laborers (*ju dai* 居貸). Moreover, all these mentions, as well as another mention of *zi su*, are dated from the 26th year of the First Emperor (222/221 BCE). Interestingly, no single mention of *su* 粟, which otherwise dominate the Qianling ration record, appears in the seven documents dated from this year. One may speculate that we are dealing with some specific word use that was discontinued after 221 BCE or that the four double-character compounds reflect a medical practice when different grains were mixed to prepare some healing gruel. In any event, the diversity of crops used to issue rations in the first year of Qin's presence in the You River basin contrasts the record for the following years when either millet or rice was used.

While the agricultural situation in Qianling resonates with the archaeological evidence from elsewhere in the Middle Yangzi region (see Appendix 2), the relatively low proportion of rice in the local grain supply may be surprising. Ration records mention three different storehouses, Jing 徑廩, Bing 丙廩, and Yi 乙廩, all of which were storing and issuing millet. The Western storehouse, on the other hand, appears to have been dedicated exclusively to rice storage (see

[317] For a recent discussion of this facility, see Yang Xianyun, "Qin jian suo jian "si" ji "sishe" chutan" 秦簡所見"疶"及"疶舍"初探 [A preliminary discussion of "si" and "sishe" in the Liye documents], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=3102, accessed December 20, 2018.

above). Of course, we know nothing of the storage capacity of either facility, yet the 3:1 ratio corresponds reasonably well with the data in Chart 3.1.

Due to the small size of the sample, there seems to be little value in attempting to establish any relationship between the ration-issuing offices and the type of grain they were dealing in beyond the above-mentioned possible connection between the *sishe* "hospital" and mixed-grain rations. The Office of Granaries (*cang* 倉) and the Qiling District are the two offices known to have been issuing rice, with 11 and 2 records, respectively. (In three more cases, the issuer is unclear.) These two offices account for more than 60% of the total number of ration records where the issuer identity is specified, so their overrepresentation in the rice-issuing record may be the function of the large total number of mentions (see Chart 3.2).

Scholars also argued for a relationship between the type of grain and the status of the ration recipient, particularly that rice was issued to individuals of higher social standing, primarily officials, and to infants, as it was considered easier to digest.[318] Indeed, of the nine identified rice recipients, three were officials, one infant (*ying'er* 嬰兒), and one probably a child (*xiao nanzi* 小男子). Yet, they also included adult convicts of both genders as well as debtor laborers and soldiers. On the other hand, officials and infants are also recorded to have been receiving millet rations (see Appendix C).[319] The resultant picture is too murky to warrant a conclusion.

One final, inconclusive observation concerns the record dates. With the exception of one date in the 26th year of the First Emperor (end of 222–221 BCE) and one record with an unclear date, the remaining 14 rice-issuing records date from the 31st year (end of 217–216 BCE). This

[318] Miyake, "Seifuku kara senryō tōchi he," 63-64.

[319] It should be noticed that much of this evidence came to light after the publication of Miyake's study of grain rations in Qianling.

year also accounts for almost 60% of the dated records total (see Chart 3.3), a feature that deserves attention and that will be discussed in Chapter 4. Yet, the concentration of rice records in this year is clearly beyond proportion. We will need to wait till the publication of the entire Liye corpus to substantiate the hypothesis that some special agricultural developments or, more likely, increase in grain imports, were taking place in the county in that particular year.

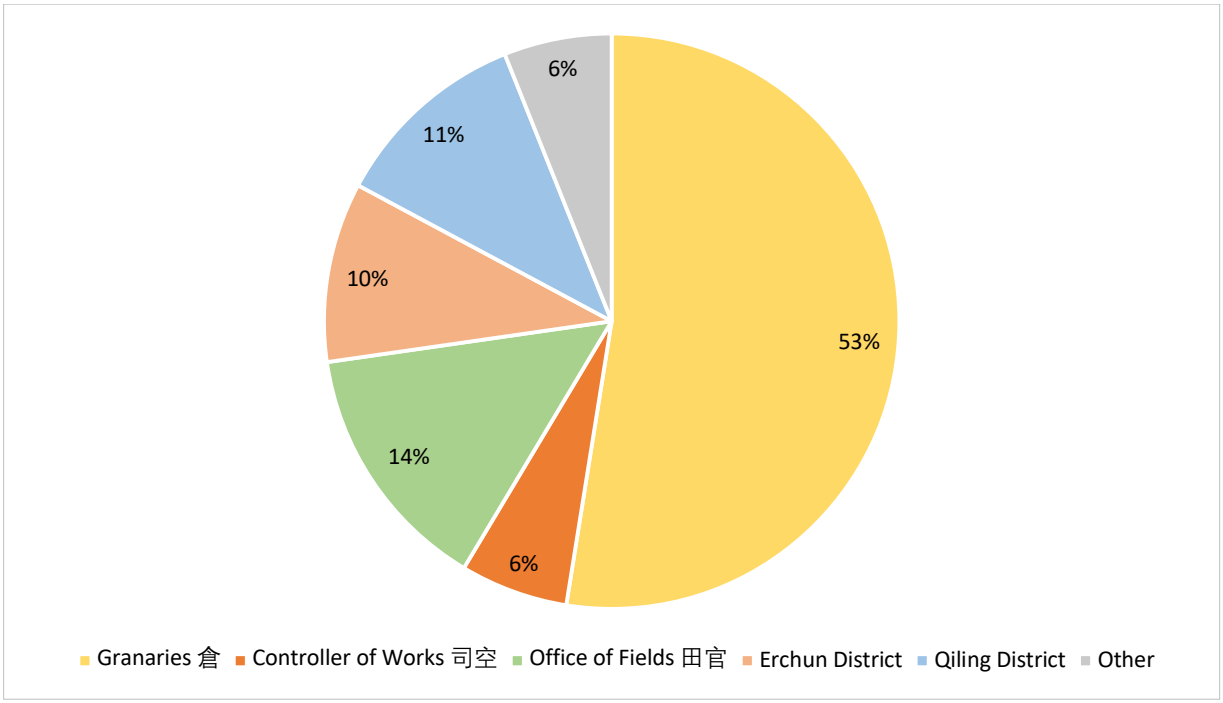

Chart 3.2: Ration-issuing offices

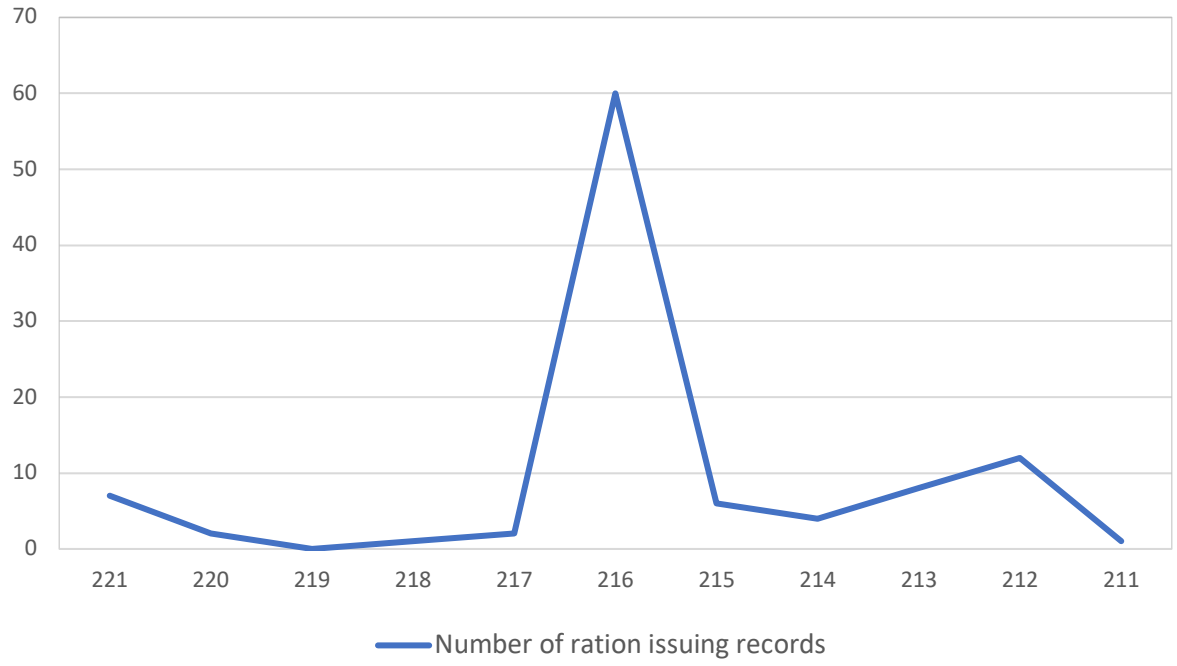

Chart 3.3: Ration records by date

Combined with the archaeological record, the written evidence from Liye offers an interesting picture of agricultural resources in the area. Cultivation of paddy rice along with dryland crops, primarily millet but also wheat and legumes, had a long history in the Middle Yangzi basin, which goes back to the Neolithic and continued into the early imperial era. Such combination is explained by a subsistence strategy that prioritized risk evasion, and the region's vertical topography that necessitated the adoption of arid-adaptable crops as settlements expanded into the upland environments. The Qin administrators, soldiers, and colonists, at least some of whom were coming from the North, probably found this agricultural environment more familiar than the rice paddy landscape that prevails to the south of the Yangzi nowadays.

The central government's urgent demands to open up new arable land were also favoring dryland crops, as the construction of irrigation systems and paddies, especially terraced paddy

fields on the hill slopes, was and remains a time- and labor-consuming process that also requires expertise hardly be expected from convicts and soldiers, many of whom were strangers to the region and its environment.[320] Rice paddies are also more susceptible to the small-scale family cultivation than to being tilled by convict labor gangs at the state-managed farms, as was widely practiced in the Qin state economy (see Chapter 4). Natural environment, local agricultural traditions, and political economy focused on the state-organized agricultural expansion and associated social engineering contributed to the configuration of agricultural resources reflected in the Qin documents from Liye.

Wildlife resources

Just a few months after the troops from the north occupied the Yuan River basin, the governor of the recently founded Dongting Commandery issued a circular with an aim to facilitate the Qin officials' adaptation to the local conditions. He addressed to the Bureaus of Stables (*jiu cao* 廐曹), an agency of the county government:[321]

> 【廿】六年二月癸丑朔庚申，洞庭叚（假）守高謂縣丞：乾藿及菅茅善用殿。且燒草矣，以書到時，令乘城卒及徒隸、居貲贖責勉多取、積之。必各足給縣用，復到乾草。勉毋乏。它如律令。新武陵布四道，以次傳，別書。書到相報，不報者追之。新【武陵】□書到，署廐曹，以洞庭發弩印行事。（正）
> 五月乙酉，遷陵守丞敦狐敢告尉、告鄉官主，以律令從事。以次傳書，勿留。/夫手。即走辰行。
> □□□□□□□□□□【報】酉陽曰：書已到。/夫手。即司空史郤行。
> 五月甲申水下七刻，焦士五（伍）陽□鼠以來。/陽半。　　癰手。（背）

[320] On the large amount of labor necessary to maintain wet rice cultivation infrastructure, see Needham and Bray, *Science and Civilisation in China*, vol. 6: *Biology and Biological Technology*, part II: *Agriculture*, 499-501.

[321] *Liye Qin jiandu*, vol. 2, 374-375, tablet 9-1861.

Front side

In the twenty-sixth year [of King Zheng, i.e., the First Emperor], in the second month, *gui-chou* being the first day of the month, on the day *geng-shen* (March 5, 221 BCE), Gao, the temporary Governor of Dongting [Commandery], addresses the vice-magistrates of [subordinate] counties: "The dried *guan*[322] and *jianmao*[323] are useful [grasses]. As [the time for] grass-burning is approaching, on the arrival of this circular, order the wall-guarding soldiers as well as unfree laborers and debtor laborers to exert themselves in order to gather and stockpile these grasses. Each county should have enough to supply itself. It should be added [to the county's stock of] dry grass (?). [Let them] exert themselves tirelessly. All the rest [should be processed] according to the statutes and ordinances. [This circular] is dispatched from Xinwuling along the four routes and delivered from county to county, [with] separate copies [being made when appropriate]. [Counties should] report to each other on the arrival of the circular, if they do not report, chase them. Xinwuling… the circular arrived, addressed to the Bureaus of Stables, processed on the strength of the seal of the Dongting Commander of Crossbowmen.

Back side

In the fifth month, on the day *yi-you* (May 29, 221 BCE), Dunhu, the provisional Vice-Magistrate of Qianling [County], dares to instruct to the [County] Commandant and instructs the heads of the District offices to proceed according to the statutes and ordinances. Transfer the circular according to the sequence [of administrative units] without delay. / Drafted by Fu. Immediately dispatched with the runner Chen.

…Reporting to the Youyang [County authorities]: The circular was delivered.[324] / Drafted by Fu. Immediately dispatched with She, the scribe [at the office of the] Controller of Works.

In the fifth month, on the day *jia-shen* (May 28, 221 BCE), in the seventh hour, delivered by Shu, the commoner from the Yang… [Community?] of Jiao County.[325] / Opened by Yang. Drafted by Yong.

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[322] *Guan* 藿, also known as *luomo* 蘿藦, known in the Western languages by its Japanese name gagaimo (*Metaplexis japonica*) is deciduous, twining vine with annual stems and rhizomatous perennial roots native to the mountainous regions of China and Japan, see *Dictionnaire Ricci*, 292.

[323] *Jianmao* 菅茅 (*Themeda gigantea* (Cav.) Hack.) is a genus of plants in the grass family native to Southeast Asia, Africa, Australia, and Papuasia. For identification, see *Dictionnaire Ricci*, 228.

[324] This note records that the Qianling County authorities reported the receipt of the circular to the authorities of Youyang County, to the east of Qianling (see Map 2.5), from where the document was delivered.

[325] A county with such name is otherwise unknown, however the geographical treatise of the *Hanshu* records Qiao 譙 County under Pei 沛 Commandery in the present-day Anhui Province. See *Hanshu*, 28A.1572; *Zhongguo lishi dituji*, vol. 2, 19-20. Editors of the Liye materials point at graphic similarity of *jiao* 焦 and *qiao* 譙 to suggest the two graphs indicate the same administrative unit, see *Liye Qin jiandu*, vol. 2, 374-375, tablet 9-1861, comm. 15.

We do not know when, where, and how the Dongting Governor Gao familiarized himself with the southern flora. Such knowledge certainly was not taken for granted for the officials who staffed the newly established Qin administration to the south of the Yangzi. Straw was a vital resource in the Qin state economy. It was used as fodder for cattle and horses, matting for granaries, and construction material for government buildings. Identifying "useful" grasses was just as crucial for successful incorporation of a newly conquered region into the empire as building fortresses, deploying troops, and mustering farmers for labor services.

Unsurprisingly, the government was particularly concerned with the wildlife resources of military utility. Collection of bird feathers (*bu yu* 捕羽) looms large in the Qianling archival records. The task was often assigned to convict labor gangs, but feathers were also collected as tax from the general populace or purchased in the market.[326] They were used to manufacture arrows:[327]

> 白翰羽三尺五寸二鍭。　卅七年八月丙午朔☐
>
> Two arrows [made with] white pheasant feathers [with the total length of] 3 *chi* 4 *cun* (approx. 78.5 cm). In the thirty-seventh year [of King Zheng, i.e., the First Emperor], in the eighth month (August-September, 210 BCE), *bing-wu* being the first day of the month…

Ranged weapons, particularly crossbows (*nu* 弩), were essential part of the Qin armory. Crossbows, crossbow parts such as trigger mechanisms (*ji* 機) and strings (*xian* 弦), as well as arrows and quivers are the items in the inventories most frequently mentioned in the records

[326] For convicts gathering feathers, see, for example, *Liye Qin jiandu*, vol. 1, 82-83, tablet 8-142; 84-89, tablet 8-145; 199-200, tablet 8-673+8-2002; 272-273, tablet 8-1069+8-1434+8-1520; vol. 2, 455-463, tablet 9-2289; 476, tablet 9-2341; 492, tablet 9-2453. For the tax collected in feathers (*yu fu* 羽賦), see *Liye Qin jiandu*, vol. 1, 384, tablet 8-1735; vol. 2, 369-370, tablet 8-673+8-2002+9-1848+9-1897. For local government offices purchasing feathers in the market, see *Liye Qin jiandu*, vol. 1, 387, tablet 8-1755; vol. 2, 292, tablet 9-1339; 476, tablet 9-2342.

[327] *Liye Qin jiandu*, vol. 2, 195, tablet 9-738+9-1981.

kept by the Arsenal (*ku* 庫) of Qianling County.[328] Arrows were stockpiled in vast numbers. One document mentions 36,400, and another one over 40,900 arrows stored at the local arsenal.[329] These arrows were among the few important export items in Qianling:[330]

> 卅五年正月庚寅朔甲寅，遷陵少內壬付內官……
> （第一栏） 翰羽二當一者百五十八鍭，三當一者三百八十六鍭，
> （第二栏）·五當一者四百七十九鍭，·六當一者三百卅六鍭，
> （第三栏）·八當一者五［百］廿八鍭，·十五當一者□百七十三鍭。
> （第四栏）·卅五年四月己未□，·凡成鍭四百□
>
> In the thirty-fifth year [of King Zheng, i.e., the First Emperor], in the first month, *geng-yin* being the first day of the month, on the day *jia-yan* (March 12, 212 BCE), Ren, the Treasurer of Qianling [County] issues to the Office of the Interior…
> *(Register 1)* 158 arrows, each of which took two pheasant feathers [to manufacture]; 386 arrows, each of which took three pheasant feathers [to manufacture],
> *(Register 2)* • 479 arrows, each of which took five pheasant feathers [to manufacture], • 336 arrows, each of which took six pheasant feathers [to manufacture],
> *(Register 3)* • 528 arrows, each of which took eight pheasant feathers [to manufacture], • …73 arrows[331], each of which took fifteen pheasant feathers [to manufacture].
> *(Register 4)* • In the thirty-fifth year [of the First Emperor], in the fourth month (May-June, 212 BCE), *ji-wei*… • Altogether completed four hundred… arrows.[332]

[328] For a recent discussion of crossbows in the Liye documents, see Luo Xiaohua 羅小華, "Liye Qin jian zhong de nu" 里耶秦簡中的弩 [Crossbows in the Qin documents from Liye], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=3153, accessed December 29, 2018.

[329] *Liye Qin jiandu*, vol. 2, 71, 9-124; vol. 1, 154, 8-458.

[330] *Liye Qin jiandu*, vol. 1, 332, 8-1457+8-1458. It has been suggested that another fragment, 8-1260 (*Liye Qin jiandu*, 301-302), should be added to this documents, see Yang Xiaoliang 楊小亮, "Liye "hanyu" jian zhuihe yili" 里耶"翰羽"綴合一例 [Reconstruction of one Liye document concerning the "pheasant feathers"], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=1730, accessed December 29, 2018. I am following Yang's reconstruction.

[331] The number "73" is preceded by the graph *bai* 百 ("hundred"), but the graph preceding "hundred" is missing, so it is unclear how many hundreds of such arrows were issued by Qianling County.

[332] One graph following "four hundred" 四百 is illegible.

The first line explicates that the listed inventories were issued (*fu* 付) by the Qianling office of Treasury (*shaonei* 少內) to an Office of the Interior (*nei guan* 內官). Although the identity and administrative affiliation of this office are not altogether clear, it was certainly located outside of the county, as suggested by one document delivery notice that records communication between Qianling and the Office of the Interior by means of post relay (*you* 郵).[333] The office probably belonged to the central government,[334] so the arrows manufactured at Qianling were transferred to the imperial armories at Xianyang or elsewhere.

Qianling relied on its feather resources to develop an important center of arrow production, but feathers were also exported as raw material. A number of fragmentary Liye texts refer to the transportation (*shu* 輸) or issuing (*fa* 發) of feathers. In one case, the document mentions an imperial edict (*zhi shu* 制書) that probably concerned such matters.[335] The county was responsible for the payment of annual tribute in feathers (*yu fu* 羽賦). When local stocks were insufficient, officials had to purchase feathers in the market to fill the required quota, "to buy feathers in preparation for tribute [payment]" (*mai yu bei fu* 買羽備賦), as one document puts it.[336]

By the late Warring States period, the concept of a tributary order centered on the universal ruler and encompassing the entire oikumene already became important element of

[333] *Liye Qin jiandu*, vol. 1, 421, tablet 8-2033.

[334] Lu Jialiang 魯家亮, "Yuelu shuyuan cang Qin jian "wang lü" lingshi zhi yi" 岳麓書院藏秦簡《亡律》零拾之一 [One note on the "Statute on absconding" from the Yuelu Academy collection of Qin documents], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2505, accessed January 9, 2019.

[335] For the transportation of feathers, see *Liye Qin jiandu*, vol. 1, 58, tablet 8-82+8-129; vol. 2, 154, tablet 9-547; for the mention of an edict with regard to the transfer of feathers, see *Liye Qin jiandu*, vol. 1, 373, tablet 8-1648.

[336] *Liye Qin jiandu*, vol. 2, 239, tablet 9-992.

political ideology.[337] Each quarter of the known world was required to submit a tribute in local products to the ruler's court. The ability to attract tribute signified a ruler's power and the validity of his claim to universal overlordship.[338] The demand for tribute goods was defined not only by the economic demands at the center but also by the ideas about the representative local exotica. These did not necessarily correlate well with the environmental realities on the ground.

Special "tribute offices" (*xian guan* 獻官) were established at the local level to organize and supervise the collection of tribute goods. The Liye documents mention such offices in the Linyuan 臨沅 and Qianling counties of Dongting Commandery (see Map 3.5).[339] One of these texts highlights the difficulties faced by the local officials who were working hard to fulfil the central government's demands for tribute goods (*xian* 獻):[340]

> 卅四年五月乙丑朔己丑，貳春□茲敢言之：廷下獻官丑書曰：獻官吏徒莫智（知）薏□，問有智（知）者言。今問之，莫Ⅱ智（知）。敢言之。倉。（正）……以來。/……（背）
>
> *Front side*
> In the thirty-fourth year [of King Zheng, i.e., the First Emperor], in the fifth month, *yi-chou* being the first day of the month, on the day *ji-chou* (June 20, 213 BCE), Zi, the [Head of the] Erchun District, dares to report this: The document [received] from Chou, the Head of the Tribute Office at the [County] Court, states [the following]: "Officials

[337] A number of texts dated from the Warring States and the beginning of the imperial period provide detailed geographic outlines of the tributary universe. See, for example, the "Tribute of Yu" (*Yu gong* 禹貢) chapter of the *Shangshu* (*The Classic of Documents*), in *Shisanjing zhushu* zhengli weiyuanhui 《十三經注疏》整理委員會, ed., *Shisanjing zhushu. Shangshu zhengyi* 十三經注疏。尚書正義 [*Thirteen classics with primary and secondary commentaries. The true meaning of the Shangshu (The classic of documents)*] (Beijing: Beijing daxue, 1999), 6.132-171.

[338] For a discussion of the literary representations of tributary system during the Warring States and early imperial eras, see Lewis, *The Construction of Space in Early China* (Albany: State University of New York Press, 2006), 234-243.

[339] *Liye Qin jiandu*, vol. 2, 79, tablet 9-165+9-473; 271, tablet 9-1162.

[340] *Liye Qin jiandu*, vol. 2, 79, tablet 9-165+9-473.

and laborers at the Tribute Office are unaware of the *yi* [plant]… [We] inquire if there is [anyone] who knows [the plant].” Now [I] have inquired, and there is no one [here] who knows. Dare to report this. [Office] of Granaries.[341]

Back side
Delivered by… / …

The central government’s tribute assignments could be at odds with the reality of local wildlife resources. The county offices responsible for collecting and submitting tribute often had a difficult time identifying the required items. Complaint about the lack of certain tribute goods is voiced in another fragmentary document from Liye.[342] In 212 BCE, Qiling district proved unable to find and submit the two kinds of fish per demand of their county superiors who, in turn, had to offer these fish as tribute payment. While one of the required fish was perch (*luyu* 鱸魚), the other one, *jiaoyu* 鮫魚, might have been a large marine fish,[343] which of course could not be procured in an inland county such as Qianling.

In spite of such setbacks, the imperial demand for tribute probably served an important impetus for exploration and mapping natural resources. The Qianling documents abound in mentions of various tribute items, such as dried fish,[344] birds,[345] gourds (*donggua* 冬瓜),[346] and

[341] The meaning of the final graph in the text on the front side of the tablet, *cang* 倉 (“granaries,” “office of granaries”), which was not transcribed in the second volume of the Liye materials, is not altogether clear. Did the Erchun district authorities require that their response was also made known to the Office of Granaries? Or was the Tribute Office somehow affiliated with Granaries? Another two possibilities, suggested by Robin D.S. Yates, are that 1) the scribe was reusing a board once used by the Office of Granaries (*cang*) without having erased the graph; or 2) “Cang” is a person’s name (Yates, personal communication).

[342] *Liye Qin jiandu*, vol. 2, 62, tablet 9-77.

[343] *Liye Qin jiandu*, vol. 1, 222, tablet 8-769.

[344] *Liye Qin jiandu*, vol. 1, 263, tablet 8-1022; 380, tablet 8-1705; vol. 2, 413, tablet 9-2066.

[345] *Liye Qin jiandu*, vol. 1, 359-361, tablet 8-1562.

[346] *Liye Qin jiandu*, vol. 1, 263, tablet 8-1022.

fruit of raisin tree (*zhiju* 枳枸).[347] The quest for tribute products may have partly defined the administrative geography when districts were set up in the areas that abounded in biotic resources.

As the arrival of the imperial state transformed some plants and animals into sought-after resources, so others were rendered public enemies, and their destruction was institutionalized. The later especially concerned large mammals that were considered dangerous for people, crops, and domestic animals.[348] A fragmentary text from the Qianling archive was probably a list of such dangerous creatures. It includes tigers, apes, elephants, wolves and jackals.[349] Of these, tigers counted as the main threat. The government systematically rewarded its subjects for hunting and killing tigers, as illustrated by the following fragmentary report by the Town District authorities:[350]

廿八年五月己亥朔甲寅，都鄉守敬敢言之☐
虎得，當復者六人，人一牒，署復【年】于【券/牒】☐
從事，敢言之。　☐（正）
五月甲寅旦，佐宣行廷　（背）

[347] *Liye Qin jiandu*, vol. 1, 237, tablet 8-855; vol. 2, 190, tablet 9-718; 217, tablet 9-869.

[348] For the destruction of large mammals that accompanied the southward expansion of the Chinese state and its agricultural populations, see, for example, Robert Marks, *China: Its Environment and History* (Lanham: Rowman & Littlefield, 2012), 150.

[349] *Liye Qin jiandu*, vol. 2, 240, tablet 9-1005. Some scholars suggested the graph initially transcribed as *xiang* 象 ("elephant") should instead be read as *shi* 豕 ("boar"), see Liye Qin jiandu jiaoshi xiaozu, "*Liye Qin jian (er)* jiaodu (er)," accessed January 8, 2019.

[350] *Liye Qin jiandu*, vol. 1, 103, tablet 8-170. This text has resently been studied by Zhuang Xiaoxia 莊小叚 who convincingly reconstructed some of its missing parts, see Zhuang Xiaoxia, "Liye Qin jian suo jian Qin "de hu fu chu" zhidu kaoshi – jian shuo Hunan chutu jiandu suo zai zhonggu shiqi de huhuan" 里耶秦簡所見秦"得虎復除"制度考釋--兼說湖南出土簡牘所載中古時期的虎患 [A study of the Qin regime of "labor service exemption for capturing a tiger" reflected in the Qin documents from Liye, with a discussion of the "tiger dangers" during the late antiquity and early medieval period as recorded in the excavated documents from Hunan], *Chutu wenxian yanjiu* 17 (2018): 115-128. My transcription and translation of this document adopts her conclusions.

Front side
In the twenty-eighth year [of King Zheng, i.e., the First Emperor], in the fifth month, *ji-hai* being the first day of the month, on the day *jia-yin* (June 17, 219 BCE), Jing, the provisional Head of the Town District, dares to report the following: "…[For] capturing a tiger, six men deserve exemption [from labor services]. For each man, one [wooden] tablet [is attached], the exemption period is specified on [these tablets]… Process this matter. Dare to report this."

Back side
In the fifth month, on the day *jia-yin* (June 17, 219 BCE), in the morning, Assistant Xuan was dispatched to the [county] court [to deliver this document].

Labor service exemption was among the government's most powerful tools for incentivizing certain activities or behaviors,[351] and the Qin rulers willingly deployed it to transform the natural environment in the desired direction. The residents of Qianling County responded by engaging in tiger hunting, as suggested by the reports on the sale of tiger meat turned in by private individuals who captured animals.[352] Similar policies were pursued elsewhere in the late Warring States Qin.[353] The tigers may be the best-known victims, but they were certainly not the only ones. The Qianling government directed its convicts to catch apes (*bu yuan* 捕猨),[354] and the annual reports were submitted on the number of captured leopards.[355] Other large animals listed in the above-mentioned document on tablet 9-1005 were probably also the targets of government-organized or government-incentivized hunting campaigns.

[351] For a discussion of labor service exemptions in the Qin and Han empires, see Ma Yi, "Yaoyi" 徭役 [Labor services], in Lin Ganquan 林甘泉, ed., *Zhongguo jingji tongshi. Qin Han jingji juan* 中國經濟通史。秦漢經濟卷 [*Economic history of China. Qin and Han economy*] (Beijing: Jingji ribao, 1999), 701-713.

[352] *Liye Qin jiandu*, vol. 2, 57, tablet 9-56+9-1209+9-1245+9-1928+9-1973; 84, tablet 9-186+9-1215+9-1295+9-1999.

[353] *Hou Han shu*, 86.2842.

[354] *Liye Qin jiandu*, vol. 1, 113, tablet 8-207; 358-359, tablet 8-1559.

[355] *Liye Qin jiandu*, vol. 2, 313, tablet 9-1453.

The Qianling archive therefore illustrates some important aspects of the multivalent engagement between the state and the natural environment. From the official point of view, the latter embodied both resources and challenges. Resources could be of a local usefulness, such as grasses used for storehouse matting or construction purposes. Some had military utility and were extracted in large volumes surpassing local demand. These were sometimes shipped over long distances, probably as far as the imperial capital. Finally, some wildlife species were sought after as items to be submitted in tribute to the emperor's court. The latter two types of "resources" entered the empire-wide circulation network and sometimes enjoyed high visibility in literary works.[356] The first type, which was the one least mentioned in transmitted writings, presented an arena for true ingenuity as the normal functioning of imperial administration and state economy depended on the ability to substitute local materials for those familiar to the functionaries and personnel arriving from other regions. The process involved investigation into the environment, collection of local knowledge, and circulation of guidelines for the use of newly identified resources. Although the new sources only start to reveal the details of this complex process, it was certainly a crucial element of the imperial expansion and incorporation of the new frontiers.

[356] During the Western Han period, the new literary genre, the *fu* 賦 rhapsody, developed to celebrate the vast array of local exotica available to and consumed at the imperial court. For a recent discussion, see Tamara Chin, *Savage Exchange: Han Imperialism, Chinese Literary Style, and the Economic Imagination* (Cambridge and London: Harvard University Press, 2014), 69-109.

Metal resources

The present-day Hunan Province is known for its abundant mineral resources.[357] Copper deposits at Mayang, already mentioned in this chapter, were exploited during the Bronze Age. Yet due to the lack of written records for the region and limited archaeological study of ancient mining sites in Western Hunan, the Qianling county archive remains the earliest source of relatively detailed information about the metal resources in the region.

Extraction of metal ores for manufacturing weapons and utensils, including farming tools, was naturally a top priority for the Qin state with its ongoing projects of conquest and agricultural expansion. Iron (*tie* 鐵), copper (*chijin* 赤金), and tin (*xi* 錫) are the three metals most frequently mentioned in the Liye documents. Iron mining (*cai tie* 采鐵) was among the activities that the county's Bureau of Finance (*jinbu cao* 金布曹, often referred to as "the County [Bureau of] Finance," *ting jinbu* 廷金布) was obliged to regularly report on. These activities also included casting (*zhu* 鑄) and forging (*duan* 鍛) metal objects.[358]

That a specialized administration of mining and processing of iron, the Office of Iron (*tie guan* 鐵官), which was probably directly subordinate to the central government, was established in Dongting Commandery, also indicates the importance of ferrous metallurgy in Western Hunan.[359] It is unclear whether this agency was part of the institution of an iron monopoly, as it is known to have been from the mid-Western Han period on.[360] In any event, it was not the sole

[357] Zhu Xiang, *Hunan dili*, 37-38.

[358] *Liye Qin jiandu*, vol. 1, 152-153, tablet 8-454.

[359] *Liye Qin jiandu*, vol. 2, 186-189, tablet 9-713; *Liye Qin jian bowuguan*, 56, tablet 10-1170.

[360] Some scholars suggest the Western Han Emperor Wu, the founder of the salt and iron monopolies, might have been "following the Qin precedent in establishing these offices," see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 647, n. 12. However, the dearth of information on the "offices of iron" under the Qin Empire preclude any

agency in charge of manufacturing iron utensils. As mentioned, the county arsenals (*ku* 庫) were the sites of weapons production that certainly involved metals. A document dated from the very beginning of the Second Emperor's reign (210–207 BCE) records the transfer of some 9 kg of iron and bronze from the Controller of Works (*sikong* 司空) to the Qianling county Arsenal.[361] The Arsenal officials, in their turn, issued metals to the artisans (*gong* 工) who were responsible for producing objects and for their quality.[362]

It is noteworthy that in the above-mentioned document, the Arsenal received metal from the office of Controller of Works, one of the two county-level agencies in charge of managing the unfree labor force (see Chapter 4 for detailed discussion). As in later periods, convicts were frequently deployed in mining operations. Two fragmentary documents mention laborers (*tu* 徒) engaged in tin mining (*cai xi* 采錫).[363] Although the status of these laborers is unclear, at least in one case they were managed by the Office of Granaries (*cang* 倉), another county-level agency in charge of convicts.[364] Labor conscripts could also be directed to the mines. A fragmentary document from Liye refers to the "boat officials" (*chuan li* 船吏), most likely petty functionaries

definite conclusion about the relationship between the Qin and Western Han systems of the state administration of iron metallurgy.

[361] *Liye Qin jiandu*, vol. 2, 269, tablet 9-1146+9-1684.

[362] For the Arsenal officials issuing bronze to individual artisans, see, for example, *Liye Qin jiandu*, vol. 2, 65, tablet 9-89+9-739; 146, tablet 9-506+9-2332; 437, tablet 9-2232. For an analysis of production lines and quality control in the government-managed workshops in the Qin and Han empires, see Barbieri-Low, *Artisans*, 6-16, 76-83.

[363] *Liye Qin jian bowuguan*, 57, tablet 12-3; 58, tablet 12-447.

[364] For the suggestion that the laborers mentioned in these two documents were convicts, see Liye Qin jiandu jiaoshi xiaozu, "Xin jian Liye Qin jiandu ziliao xuanjiao (san)" 新見里耶秦簡牘資料選校（三） [Edited seleced materials from the new Qin documents from Liye, part 3], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2279, accessed January 10, 2019.

in the county Office of Boats (*chuan guan* 船官), performing labor service (*yao* 繇) at the copper mines (*cai chijin* 采赤金).[365]

The Liye documents published so far leave an impression that the local government was the main operator of mining and metallurgy. Only one, partly preserved, document provides evidence for what seems to have been a private dealing in metals. The text records the sale of metals and the payment of related taxes and fees:[366]

> 𠂤買鐵銅，租質入錢，貲責除歲，買請銅錫（正）
> 𠂤□，繭絲· 凡七章，皆毋出今旦（日）。急急急（背）
>
> *Front side*
> …purchase iron and bronze, [market] tax and authorization fee paid in cash, fines and debt [obligations] are carried into the next year, purchase and request for bronze and tin.
>
> *Back side*
> …cocoons and silk thread. • Altogether seven articles, all of which have not been issued today. Urgent, urgent, urgent.

The format and wording of this text, particularly the final phrase, point at its unofficial nature. It seems to record a commercial transaction between private individuals carried out at the official market and incurring the payment of the market tax (*zu* 租) and the authorization fee (*zhi* 質). We know nothing of the origin of metals sold, whether these were mined by the private entrepreneurs or acquired (purchased?) from the government offices involved in mining operations. Some twenty years later, in the opening decades of the Western Han, private mining has already become ubiquitous, and the government charged taxes on silver (*yin* 銀), iron, lead (*qian* 鉛), and

[365] *Liye Qin jian bowuguan*, 65, tablet 14-469. For the Office of Boats, see *Liye Qin jiandu*, vol. 1, 19, 6-4.

[366] *Liye Qin jiandu*, vol. 1, 447-448, tablet 8-2226+8-2227.

gold (*jin* 金) mining.[367] Private metal industrialists, particularly those operating in iron, are also recorded in the *Shiji* biographies of late Warring States entrepreneurs resettled from their home areas by the conquering Qin. They were able to relaunch their businesses in the new environment in the absence of any hindrance on the part of the Qin authorities.[368]

The archaeological record suggests that the arrival of Qin coincided with the increase in the use of iron utensils in the Liye area. Only 9 iron objects have been reported from the late Warring States cemetery at Maicha, five of which are swords.[369] In contrast, 135 items were excavated at the Liye settlement site, most of which are utensils such as axes, spades, knives, chisels, awls, and hooks, but also kitchenware.[370] The Western Han cemetery at Qingshuiping 清水坪 (see Map 3.6), which is comparable with the Maicha cemetery in terms of the number of tombs excavated,[371] yielded 57 iron objects, mostly utensils such as knives, spades, and axes, and kitchenware including cauldrons and cauldron racks.[372] If this data indeed reflects the use of iron in the area, the (still poorly understood) measures undertaken by the Qin authorities for promoting iron metallurgy, such as the founding of the Office of Iron, may have had a lasting impact on the local economy. Of course, the possibility of increasing imports of iron objects in the wake of the Qin conquest cannot be ruled out either.

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[367] *Ernian lüling yu Zouyanshu*, 256-257, slips 436-438; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 926-929.

[368] *Shiji*, 129.3277-3279.

[369] *Liye fajue baogao*, 350-351.

[370] *Liye fajue baogao*, 170-179.

[371] The Liye archaeological report provides account for 236 tombs at the Maicha cemetery and 255 tombs at Qingshuiping cemetery, see *Liye fajue baogao*, 240, 374.

[372] *Liye fajue baogao*, 525-528.

Mutatis mutandis, the same refers to the bronze metallurgy. 35 bronze objects were excavated at the Maicha cemetery, but 468 objects and 4989 bronze coins at the Qingshuiping cemetery.[373] 55 objects and 191 coins were reported for the Qin stratum of the Liye settlement site.[374]

The present evidence is certainly insufficient to generalize about the scope of state-managed metallurgy in the Qin Empire and its relationship to private enterprises. Yet temporal coincidence of the written mentions of the state involvement in mining and metal production, on the one hand, and considerable increase in the use of metal objects attested by the archaeological evidence, on the other, point at the economic impact of the Qin quest for metal resources and the increased availability of metals in the local economy.

3.3. Organization of economic management

Some local agencies of economic management have been mentioned in this and the previous chapters. Many studies devoted to the administration of the economy in the early Chinese empires focus on one of these agencies, the Office of Fields (*tian guan* 田官), which dealt with the key economic asset, arable land.[375] If one decides to stick to the factor-based approach, they

[373] *Liye fajue baogao*, 342-350, 479-511.

[374] *Liye fajue baogao*, 162-170.

[375] Some of these studies, noticeably that of Yamada Katsuyoshi, have been mentioned and discussed in Chapter 1. For more recent research based on the Liye and other newly excavated Qin materials include, for example, Chen Wei, "Liye Qin jian suojian de "tian" yu "tian guan" 里耶秦簡所見的"田"與"田官" ["Fields" and "Office of Fields" in the Qin documents from Liye], *Zhongguo dianji yu wenhua* 中國典籍與文化 4 (2013): 140-146; Wei Yongkang 魏永康, "Liye Qin jian suojian Qin dai gong tian ji xiangguan wenti" 里耶秦簡所見秦代公田及相關問題 [Questions related to the state-owned agricultural land in the Qin Empire as reflected in the Qin documents from Liye], *Zhongguo nongshi* 中國農史 2 (2015): 39-51; Li Mian 李勉, "Zai lun Qin ji Han chu "tian" yu "tian bu" 再論秦及漢初"田"與"田部" [Reexamination of the "Fields" and the "Division of Fields" during the Qin and the beginning of the Han period], *Zhongguo nongshi* 3 (2015): 45-55; and Li Mian and Jin Wen 晉文, "Liye Qin jian zhong de "tian guan" yu "gong tian" 里耶秦簡中的"田官"與"公田" ["Office of Fields" and "public fields" in the Qin documents from

would have no difficulty identifying agencies in charge of managing another crucial factor of production, labor. These were par excellence the offices of Granaries (*cang* 倉) and the Controller of Works (*sikong* 司空), each managing a labor force of convict criminals and debtor laborers. Both will be addressed in much detain in the following chapter. Finally, the county Treasury (*shaonei* 少內) was responsible for keeping and operating the liquid capital such as bronze cash and textiles, but also an array of other assets including livestock,[376] silkworm cocoons,[377] containers (e.g. baskets),[378] arrows,[379] and firewood[380] (see Chart 3.4).

This incomplete list is already sufficient to notice that the range of assets under the management of particular offices overlapped significantly. We already know, for example, that arrows and other weapons were produced, stored, and distributed by the county Arsenal (*ku* 庫). There was also a special Office of Livestock (*chu guan* 畜官) in charge of the government-owned domestic animals. The office of the Controller of Works, which managed hard-labor convicts, was at the same time managing boats that were sometimes leased out to private individuals,[381] and an impressive inventory of wooden tools and utensils (such as ladders) that it provided on demand to

Liye], in Yang Zhenhong and Wu Wenling, eds., *Jianbo yanjiu 2016*. *Chun xia juan* 春夏卷 (Guilin: Guangxi shifan daxue, 2016), 120-131.

[376] *Liye Qin jiandu*, vol. 1, 179, tablet 8-561.

[377] *Liye Qin jiandu*, vol. 1, 61, tablet 8-96; 314-351, tablet 8-1353.

[378] *Liye Qin jiandu*, vol. 1, 287, tablet 8-1170+8-1179+8-2078.

[379] *Liye Qin jiandu*, vol. 1, 332, tablet 8-1457+8-1458.

[380] *Liye Qin jiandu*, vol. 1, 443, tablet 8-2193.

[381] *Liye Qin jiandu*, vol. 1, 72-76, tablet 8-135.

other government offices.[382] In the most immediate sense, "economic management" for the local Qin officials meant the operation of miscellaneous assets that their offices were in charge of.

This is not to say that the government did not have a more systematic notion of the economy or economic policy, even though these were not conceived as pertaining to a distinct field of "economic" expertise. New agricultural land had to be opened up for cultivation, flocks of livestock had to grow, convicts had to be productively employed, and the government-owned inventories had to be leased out when possible to generate profits. Qin officials were aware that their performance in these and other areas directly affected their career perspectives.

Rather than pursuing the impossible task of listing all assets managed by various local government agencies that appear in the Liye documents, in this final section of the chapter I will focus on the two topics that shed light on the organization principles of economic management in the Qin Empire. First, I consider the organization of the county government in its relationship to economic management. I argue that the analysis of this organization helps to approach the Qin concept of "economic management" as something different from the operation of a vast array of state-owned assets and inventories. Second, I discuss the notion of "economic policy" as applied in the Qin documents, identify some of the key economic policies reflected in the excavated written sources, and outline the mechanisms of coordinating these general policies at the different levels of government.

[382] *Liye Qin jiandu*, vol. 1, 163, tablet 8-478.

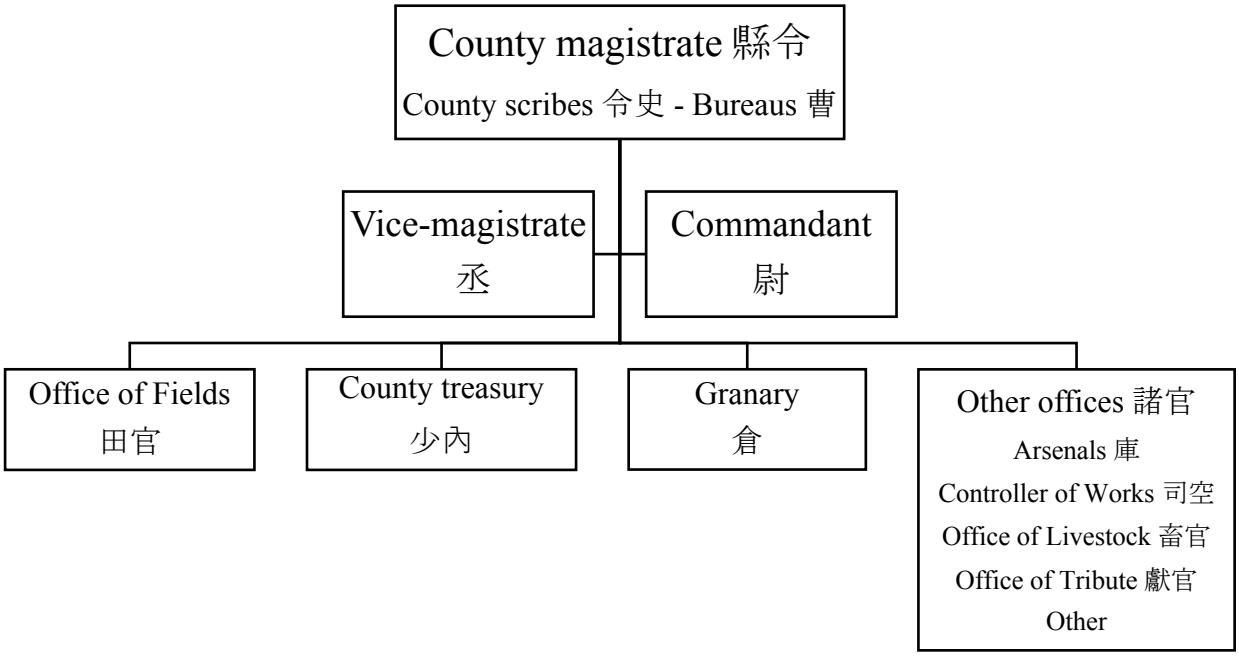

Chart 3.4: Organization of county government

Organization of the county government and approaches to economic management

The essential mechanism of economic management in the Qin Empire was the circulation of written documents. Any office charged with the management of government-owned assets had to submit accounts on the use of these assets to higher offices to which they were subordinate. Grain issuing records discussed in the previous section is one example thereof. Additionally, offices had to periodically submit accounts (*ji* 計) that recorded the amounts of material inventories and personnel in their custody at particular points of time, and evaluations (*ke* 課) that reflected the dynamics of these assets over the period of time.[383] Evaluations submitted by the county

[383] Chen Gang 沈剛, "*Liye Qin jian (yi)* zhong de "ke" yu "ji" – jiantan Zhanguo Qin Han shiqi kaoji zhidu de liubian" 《里耶秦簡（壹）》中的"課"與"計"—兼談戰國秦漢時期考績制度的流變 ["Evaluations" and "accounts" in the first volume of *Liye Qin jiandu*, with some observations about the changes in the official assessment regime during the Warring States, Qin, and Han periods], *Ludong daxue xuebao (zhexue shehui kexue ban)* 魯東大學學報（哲學社會科學版） 1 (2013): 64-69.

Controller of Works, for example, included "Evaluation of male hard-labor convicts who died and absconded" 城旦死亡課, "Evaluation of babies born by the female hard-labor convicts" 舂產子課, and "Evaluation of convicts engaged in craft production who died and absconded" 作務徒死亡課.[384] Officials' performance was assessed and decisions about promotions, rewards, penalties, or dismissal from office made on the basis of such documents.[385] A list of accounts for the office of the Controller or Works included "Account on boats" 船計, "Account on implements" 器計, "Account on [those working off] redemption fees" 贖計, "Account on [those working off] fines and debts" 貲責（債）計, and "Account on unfree laborers" 徒計.[386] Neither of the lists is exhaustive.

However, the county-level offices in charge of managing state-owned assets did not directly communicate to the central government that was the ultimate recipient of these accounting documents. These documents were sent to the county court that was in charge for verifying the accounts and evaluations before submitting them upwards.[387] At the county court, each office's

[384] *Liye Qin jiandu*, vol. 1, 165-166, tablet 8-486. The title of the later evaluation was fully transcribed in He Youzu 何有祖, "Du Liye Qin jian zhaji (yi)" 讀里耶秦簡札記（一） [Miscellaneous reading notes on the Liye documents, part 1], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2261, accessed January 14, 2019.

[385] In the late Warring States Qin, at least for some offices, such rewards and punishments were distributed on the event of "great evaluation" (*da ke* 大課) in the first month of the lunar year (February–March), see *Shuihudi*, 22-23, slips 13-14; Hulsewé, *Remnants*, 26-27.

[386] *Liye Qin jiandu*, vol. 1, 164, tablet 8-480.

[387] Scholars previously argued that in the Warring States and imperial Qin, counties submitted their accounts directly to the central government without commandery mediation. See, for example, Chen Gang, "*Liye Qin jian (yi)* zhong de "ke" yu "ji," 69. Yet some Liye documents seem to indicate that some evaluations were submitted to the commandery. See, for example, *Liye Qin jiandu*, vol. 1, 377, tablet 8-1677. It is possible that the latter was accumulating accounting documents for further shipment to the center and did not compose new cumulative accounts on the basis of those submitted by the counties, as commanderies are known to have been doing by the end of the Western Han period.

documents were handled by a specialized "bureau" (*cao* 曹), as has already been mentioned in the end of previous chapter. In reality, these bureaus were individual working spaces of county scribes (*lingshi* 令史), some if not all of whom probably sat next to each other in the same office room (see Chart 3.4).[388] Their job was to look through the accounts and evaluations delivered from the offices, collate them with other records that reflected the dynamics of government-owned assets, and authorize the documents for subsequent submission to the central government.[389]

To illustrate the interaction between offices and bureaus, let us consider the already familiar example of records concerning the issue of grain rations to officials, servicemen, and laborers. These records were submitted by various offices who employed these personnel and issued the rations. When offices submitted accounts of their grain storage at the end of the accounting year, the responsible bureau would compare the amounts in these accounts with those in the previous year's account and the totality of ration records by the respective offices over the past year. Any discrepancy would then be inquired into and investigated if needed. Moreover, the bureau would also have to confirm that all ration receivers were authorized to collect rations for the period of time recorded in the documents. In the case of convicts and other unfree laborers, the bureaus would probably consult the registers of laborers (*zuo tu bu* 作徒簿), which are discussed

[388] For the relationship between the bureaus and the county scribes, see, for example, Zou Shuijie 鄒水杰, "Jiandu suojian Qin dai xianting lingshi yu zhucao guanxi kao" 簡牘所見秦代縣廷令史與諸曹關係考 [A study of the relationship between the scribes at the county court and the bureaus under the Qin Empire as reflected in the documents on bamboo and wood], in *Jianbo yanjiu 2016. Chun xia juan*, 132-146. That "bureaus" were located in the same room next to each other seems to be implied by one of the Liye documents that regulates for the shrine services to be carried out by the county scribes in turns according to the order of their seats starting from the "adjacent bureau" (*pang cao* 旁曹). While the meaning of the latter term is not quite clear, it may refer to the bureau immediately adjacent to the office space of the senior county official. See *Liye Qin jiandu*, vol. 1, 78-80, tablet 8-138+8-174+8-522+8-523. For the English translation of this document and interpretation of the meaning of "adjacent bureau," see Chen Wei, "Event Calendars" in the Early Imperial Era: A Re-Assessment," *Bamboo and Silk* 1 (2018): 446-468, esp. 455-456.

[389] Li Mingzhao and Tang Junfeng, "Liye Qin jian suojian Qin dai xian guan, cao zuzhi," 133-151.

in the following chapter. Only after making sure that all these documents match would the office accounts be approved by the bureau.

In some cases, a bureau was dealing with documents submitted by an office bearing the same name. So, for example, the Bureau of Granaries (*cang cao* 倉曹) and the Bureau of the Controller of Works (*sikong cao* 司空曹) corresponded to the offices of the Granaries and the Controller of Works. However, while the Bureau of the Controller of Works appears to have been exclusively dealing with the documents submitted by the office of the same name, the Bureau of Granaries was responsible for the accounts and evaluations submitted not only by the Office of Granaries but also by the offices of Livestock and the Fields. The list of accounts processed by this bureau included the "Account(s) of the Office of Fields" (*tian guan ji* 田官計) as well as the "Account on the livestock" (*chu ji* 畜計), "Account of the oxen at the Office of Livestock" (*chu guan niu ji* 畜官牛計), "Account of horses" (*ma ji* 馬計) and "Account of sheep/goats" (*yang ji* 羊計).[390] The list of evaluations processed by the bureau has the "Evaluation of offspring produced by cattle, swine, chickens, and dogs" (*chu zhi ji gou chan zi ke* 畜彘雞狗產子課) and "Evaluation of cattle, swine, chickens, and dogs that died or escaped" (*chu zhi ji gou si wang ke* 畜彘雞狗死亡課),[391] which were most likely the summaries of the evaluations submitted by the Office of Livestock, such as the "Evaluation of the oxen in [the Office of] Livestock that died or escaped" (*chu niu si wang ke* 畜牛死亡課), "Evaluation of offspring produced by oxen in [the Office of]

[390] *Liye Qin jiandu*, vol. 1, 164-165, tablet 8-481. This list was translated in Yates, "Bureaucratic Organization of the Qin County of Qianling 遷陵 in the Light of the Newly Published *Liye Qin jian (yi)* and *Liye Qin jiandu jiaoshi (diyi juan)*," paper presented at the Fourth International Conference on Sinology, Institute of History and Philology, Academia Sinica, Taibei, June 20-22, 2012.

[391] *Liye Qin jiandu*, vol. 1, 169-170, tablet 8-495.

Livestock" (*chu niu chan zi ke* 畜牛死亡課), and identical evaluations for sheep/goats and horses.[392] That the Liye documents contain no mention of the Bureaus of Fields or of Livestock further confirms that the respective offices were supervised by the Bureau of Granaries.

Another bureau responsible for the supervision of the county's economy was the Bureau of Finance (*jinbu cao* 金布曹), which was concerned with valuables and craft production. The accounts processed by this bureau included "On the weapons and armor [produced and stored] at the Arsenal" (*ku bing ji* 庫兵計), "On carts" (*che ji* 車計), "On craft materials" (*gong yong ji* 工用計), "On the inventories [stored] by the County Treasury" (*shaonei qi ji* 少內器計), and "On gold and cash" (*jin qian ji* 金錢計).[393] Evaluations were primarily concerned with the raw materials for craft production such as lacquer, bamboo, and iron; with personnel involved in artisanal manufacturing; with the monetary incomes of the county government received from the markets and through the payment of fines, indemnity fees, and debts by the population; and with government's monetary expenditures.[394] This bureau, therefore, coordinated the accounts of the offices of the Arsenal (*ku* 庫) and County Treasury (*shaonei* 少內).[395]

As one bureau could simultaneously supervise the activities of a number of offices, so one and the same office was sometimes required to submit accounts to more than one bureau. As

[392] *Liye Qin jiandu*, vol. 1, 168, tablet 8-490+8-501. The list is translated in Yates, "Bureaucratic Organization of the Qin County of Qianling".

[393] *Liye Qin jiandu*, vol. 1, 169, tablet 8-493.

[394] *Liye Qin jiandu*, vol. 1, 152-153, tablet 8-454. Translation of this and the previous list is available in Yates, "Bureaucratic Organization of the Qin County of Qianling".

[395] This observation is supported by other Liye documents. A tag originally attached to the container for the keeping of tallies (*quan* 券) that recorded the issue and receipt of inventories by the offices indicates that the tallies originating in the offices of the Arsenal and the County Treasury were collected and processed by the Bureau of Finance. See *Liye Qin jiandu*, vol. 2, 262, tablet 9-1115.

already mentioned, the Office of Fields was accountable to the Bureau of Granaries at the county court. At the same time, its accounts on the surveying and division of agricultural fields into parcels for further distribution to the farming households ("Accounts of demarcated agricultural fields," *tian tifeng ji* 田提封計) were submitted to the Bureau of Households (*hu cao* 戶曹).[396] The size of government-distributed land plots correlated with the social status of households under the rank system (see Chapter 2), so information about land tenure was an integral part of the household registration data collected by the county government.[397] The Office of Fields was involved in surveying, mapping, and distributing land to the households as well as in the collection and storage of agricultural taxes and the management of convicts who worked state-owned fields.[398]

I interpret this division of information flows as the Qin government's attempt to rationalize resource management by delineating distinct areas of the economy such as agricultural and husbandry production, overviewed by the Bureau of Granaries; artisanal production and marketing, which was an important source of cash flow for the county government (see Chapter 2), supervised by the Bureau of Finance; the household economy defined by the land tenure, tax payments, and commitment of labor, supervised by the Bureau of Households; and the military economy focused on the upkeep of the actual and potential fighting men, be they military conscripts (*zu* 卒) or

[396] *Liye Qin jiandu*, vol. 1, 167-168, tablet 8-488.

[397] Although at present we do not have a clear statement of the range of data collected under the household registration system in the Qin Empire, such a statement is provided in the early Western Han "Statute on households" (*hu lü* 戶律) from Zhangjiashan. The statute opens with the outline of the land tenure regime defined by the correlationship between the level of social rank and the size of land plot a household was authorized to receive from the state, and proceeds with a list of registers that had to be prepared by the county government under the household registration system. These include the "land registers indicating neighboring fields," "unified registers of agricultural fields," and "registers of agricultural field taxes." See *Ernian lüling yu Zouyanshu*, 214-227, slips 305-346; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 788-803.

[398] For a discussion of the numerous and diverse functions of the state administration of agriculture, see, for example, Wei Yongkang, "Liye Qin jian suojian Qin dai gong tian," 39-51.

specific social groups whose members were routinely employed by the government to oversee and enforce order among the convicts (*sikou* 司寇, or "robber-guards", see Chapter 4 for a more detailed discussion). This was probably supervised by the county court Bureau of Commandant (*wei cao* 尉曹).[399] The relationship between the areas of economic management, government agencies, and forms of accounting is summarized in the table below.

Table 3.5: Organization of the county government and approaches to economic management

Area of economic management	**Supervising bureau at the county court**	**Resource-managing offices**	**Examples of accounts/evaluations[400]**
Agricultural and husbandry production	Granaries	Granaries Fields Livestock	A. of the Office of Fields E. of offspring produced by oxen
Artisanal production, marketing, monetary economy	Finance	Arsenal County Treasury	A. on the weapons and armor at the Arsenal A. on gold and cash
Household economy	Households	Fields County districts	A. on surveying of agricultural fields

[399] This bureau is recorded in many Liye documents, see, for example, *Liye Qin jiandu*, vol. 1, 122-123, tablet 8-253; 152, tablet 8-453; 295, tablet 8-1225; vol. 2, 109, tablet 9-331; 115, tablet 9-370; 131, tablet 9-459. This bureau was likely responsible for processing the accounts and evaluations submitted by the County Commandant (*wei* 尉) but also by other offices whose activities were relevant to what I here defined as the "military economy." For example, the list of evaluations submitted by the Commandant (*wei ke zhi* 尉課志) included the "Evaluation of fields [worked by the] "robber-guards" (*sikou tian ke* 司寇田課) and the "Evaluation of fields [worked by the] conscripts" (*zu tian ke* 卒田課), see *Liye Qin jiandu*, vol. 1, 165, tablet 8-482. The latter two evaluations probably had to be collated with the documents submitted by the Office of Fields, meaning that the latter was accountable not only to the Bureaus of Granaries and Households but also to that of County Commandant.

[400] These examples are limited to those already quoted in this section.

			A. on labor services A. on households by district
Military economy	Commandant	Commandant Fields (?)	E. of fields worked by conscripts
Allocation of labor	Granaries Controller of Works	Granaries Controller of Works Commandant (?)	E. of convicts who died and absconded A. on unfree laborers

This analysis does not claim exhaustiveness, and it almost certainly involves some reductionism of the actual thinking behind the economic management in the Qin Empire. Our understanding of the content of many accounts and evaluations mentioned in the Liye documents is imperfect or lacking. For example, what was the "Account on inventories/implements" (*qi ji* 器計) on the list of the Bureau of Households? Is the fact that the preceding item on the list is the "Account of labor services" (*yao ji* 繇（徭）計) relevant to the answer? How, if at all, does this account correspond to the management of household economy? All these questions remain unanswered.

It is also worth remembering that the Qin administrators were unlikely to have been thinking of their tasks in terms of "economic management." For example, what I have described as "household economy" for them was an array of indicators pertaining to the population within their jurisdiction and useful for assessing the degree of its satisfaction with present conditions; the likelihood that some, many, or all of these subjects soon become insolvent and/or rebellious; and the extent to which extraction could be increased before that dangerous threshold was reached. In

this sense, information about economic conditions (e.g., labor services or land distributions) was just as relevant as the report on the outcomes of legal cases involving local inhabitants (*ju ji* 鞫計), also mentioned in the list.[401]

In spite of these qualifications, the organization of county governments in the Qin Empire suggests attempts not only to maximize centralized control over the local resources through the regime of double-checking, but also to rationalize resource management by making diverse inventories and other assets (e.g., labor) operated by various offices on the ground correlate to the distinct fields of economic management in which different managerial modalities could apply, e.g., output and profit maximization, subsistence guarantee, balancing military security against the maintenance costs of specialized fighting men, etc.

Economic policies

Although the Qin official documents did not have a special term for "economic policy," the idea of a specific set of actions intended to influence or control the material and human resources as well as the living conditions of the society was not alien to Qin administrative thinking. The best evidence is provided not by the legal statutes and official documents but by the manuals addressed to the state functionaries and issued and distributed by the central government, some of which have been excavated from officials' tombs. These manuals were a very specific genre of official texts that defy simple definition. They equally touched upon the moral qualities of the officials and their conduct of the administrative routine and were composed of admonitions interspersed with vocabulary lists and, as I will argue below, statements of government policies.[402]

[401] *Liye Qin jiandu*, vol. 1, 167-168, tablet 8-488.

[402] Two such manuals have been published so far, the one from the Qin tomb no. 11 at Shuihudi and from the Yuelu Academy collection of Qin documents. See *Shuihudi*, 165-176; Zhu Hanmin and Chen Songchang, eds., *Yuelu*

The compilers of one such collection excavated from Qin tomb no. 11 at Shuihudi and dated ca. 217 BCE, draw a distinction between the moral and disciplinary aspects of government and what can be defined as its economic aspects. The latter were grouped together as a single block within the text. I quote it at some length:[403]

> 均繇（徭）賞罰，（傲）悍□暴，根（墾）田人邑，賦斂毋（無）度，城郭官府，門戶關龠（鑰），除陛甬道，命書時會，事不且須，貲責（債）在外，千（阡）佰（陌）津橋，囷屋藩（墻）垣，溝渠水道，犀角象齒，皮革橐（囊）突，久刻職（識）物，倉庫禾粟，兵甲工用，樓椑矢閱，槍閵（蔺）環殳，比（庇）臧（藏）封印，水火盜賊，金錢羽旄，息子多少，徒隸攻丈，作務員程，老弱（癃）病，衣食饑寒，□靳□（瀆），（漏）屋涂□（塓），苑囿園池，畜產肥□（瘠），朱珠丹青。
>
> Labor services evened out, rewards and fines; haughty, fierce, … and violent; bring agricultural fields under cultivation and populate the towns; taxes and levies with no restriction; city walls and enclosures, offices and storage facilities; gates and doors [should be] locked [by] keys; carry out the maintenance of the earthen mounds at the imperial roads; timely [arrive at the] gathering place when documents [containing such] orders [are received]; the [official] business does not tolerate delays; lend out and issue loans on the outside; boundary roads in the fields, fords and bridges; grain storage facilities [surrounded] by walls; canals and waterways; rhino horns and elephant tusks; leathers and hides that were damaged by insects; [make] marks and brands to identify inventories; granaries and arsenals, grain ear and grain; weapons and armor, craft materials; towers, parapet walls, and embrasures [for shooting] arrows; pikes, stone kernels, tiles, and spears;[404] the roofed storage [spaces] [should be] sealed with the official seals; water and fire, bandits and criminals; gold, cash, feathers, and pennants [made of ox tails]; the number of offspring [produced by animals and people]; the

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shuyuan cang Qin jian, vol. 1 (Shanghai: Shanghai cishu, 2010), 26-37. The latter text has recently been republished in Chen Songchang, ed., *Yuelu shuyuan cang Qin jian (yi – san). Shiwen xiuding ben* 釋文修訂本 [*The Qin documents in the Yuelu Academy collection (vols. 1–3). Revised annotated edition*] (Shanghai: Shanghai cishu, 2018), 37-60. Another such text has been reported for the Peking University collection of Qin documents, see Beijing daxue chutu wenxian yanjiusuo 北京大學出土文獻研究所, "Beijing daxue cang Qin jiandu gaishu" 北京大學蒼秦簡牘概述 [A general survey of the bamboo and wood slips of the Qin Dynasty collected by Peking University], *Wenwu* 6 (2012): 65-73.

[403] *Shuihudi*, 170-171.

[404] The editors of the Shuihudi texts correctly point out that tiles, as well as stone kernels, were munitions used for the city defense, see *Shuihudi*, 171, comm. 14.

> amount of works [performed] by unfree laborers; norms for artisans; old, weak, crippled, and ill; clothes and food [provided to] the starving and freezing; …;[405] leaking rooms in wattle and daub buildings; pastures, pens, parks, and ponds; [offspring] produced by livestock, fat and bones; cinnabar and pears, red and green.

This passage looks like a hodgepodge of words and phrases. Some of them look like slogans ("the [official] business does not tolerate delays" 事不且須), while others are lists of words referring to specific issues such as the sources of danger for the government assets ("water and fire, bandits and criminals" 水火盜賊).[406] The manual intended not only to indoctrinate officials but also to instruct them in the use of bureaucratic vocabulary. On a closer scrutiny, vocabulary introduced in the above-quoted section is that of the economic management. We have already encountered it in the accounts, evaluations, and other "economic" documents quoted in this chapter: "gold and cash" (*jin qian* 金錢), "craft materials" (*gong yong* 工用), "offspring" (*xi zi* 息子), "offspring produced by livestock" (*chu chan* 畜產), "craft production" (*zuo wu* 作務). Other terms were important concepts in the economic administration of the early emperors, such as "equalization" (*jun* 均) and "individual productivity norms" (*yuan cheng* 員程). Yet others referred to facilities ("granaries and arsenals" 倉庫, "office and storage facilities" 官府), infrastructure ("canals and waterways" 溝渠水道, "roads in the fields, fords and bridges" 阡陌津橋), valuables ("rhino horns and elephant tusks" 犀角象齒), weapons ("pikes, stone kernels, tiles, and spears" 槍閵（蔺）環殳), and major threats to property ("water and fire, bandits and

[405] The meaning of the four characters is not well understood, see *Shuihudi*, 171, comm. 20.

[406] Robin D.S. Yates suggests this particular phrase may have a more specific context of the means or agents of attack: water, fire, or direct physical assault by the enemy (Yates, personal communication).

criminals"). In other words, this was the vocabulary that every official involved in the management of state-owned assets had to master.

Does this list also provide clues to the systematic measures in resource management with regard to the material well-being of the state and the society, something that we would nowadays call "economic policies"? Some of these, indeed, are mentioned in the text, although they are not singled out as a separate block. The passage opens up with the statement that "labor services [have to be] evened out" (*jun yao* 均繇（徭）). This wording also shows up in the Qin "Statute on labor services" from the Yuelu Academy collection.[407] It refers to a number of measures aimed at equalizing households' exposure to the most onerous form of surplus extraction, the labor services.

Some of these measures have already been discussed in the previous chapter. The law required that official demands for labor services were adjusted to households' wealth. The destitute had to perform their labor duty during the agricultural slack season when temporal forfeiture of household labor was least painful.[408] Petty officials also had to participate in labor services. Their superiors' failure to make use of them to the effect of transferring the burden to commoner households was penalized with fines.[409] Yet another article of the same statute requires the "evening out" (*jun* 均) of labor contributions when the county has sufficient labor resources to do so (*li zu yi jun* 力足以均). Considering the context, the statute is likely referring to the distribution of labor burden of transportation corvée (*weishu* 委輸) between the county government and its

[407] *Yuelu shuyuan cang Qin jian*, vol. 4, 153, slip 256. The poor preservation of this slip does not allow to adequately reconstruct the text that, according to the available transcription, runs as follows: 吏（？）□繇（徭）□均.

[408] *Yuelu shuyuan cang Qin jian*, vol. 4, 149, slips 244-246.

[409] *Yuelu shuyuan cang Qin jian*, vol. 4, 152, slips 254-255.

subjects: the former had to contribute oxen, carts, and convicts instead of fully relying on the labor levies.[410]

The manual from the Yuelu Academy collection adds to the topic of normative requirements related to the conduct of labor services. A block of four graphs, typical for these manuals, states: "Labor levies should not be called for unauthorizedly" (*xing yao wu shan* 興繇毋擅).[411] Prescriptions against "unauthorized" (*shan* 擅) mobilizations are also voiced in the Qin "Statute on labor services," where such "unauthorizedness" is in one case defined as an action by the county government in the lack of approval by commandery authorities.[412] The latter's role in defining the correct way of labor mobilization is illustrated by the Dongting Commandery governor's circular of 220 BCE, partly translated in Chapter 2.[413] It instructed subordinate counties to exhaust all available pools of unfree labor, including convicts, debtors, and soldiers, before calling for a general labor levy.[414] In particular, such levies had to be avoided during the agricultural seasons.

Another policy stated in the Shuihudi manual is probably the best-known economic measure of the Qin government. It is associated with the master-mind of the mid-fourth century BCE reforms. Opening up new agricultural land (*ken tian* 墾田) and bringing in more people to

[410] *Yuelu shuyuan cang Qin jian*, vol. 4, 117, slips 149-150.

[411] *Yuelu shuyuan cang Qin jian (yi – san). Shiwen xiuding ben*, 41.

[412] *Yuelu shuyuan cang Qin jian*, vol. 4, 116-117, slips 147-148; 119-120, slips 156-159.

[413] *Liye Qin jiandu*, vol. 2, 4470452, tablet 9-2283.

[414] In this regard, note the reference to the deployment of unfree laborers (*tuli gong zhang* 徒隸攻丈) in the above-quoted fragment.

"populate the towns" (*ren yi* 人邑) were the crux of Shang Yang's brand of economic thought.[415] Bringing more land under cultivation is one of the few clearly stated economic missions of the local government. Its ability to do so was an important criterion for evaluating the performance of the officials. As in the case of the Dongting circular concerning the use of labor, the Liye document that criticizes Qianling County for its failure to allocate convict labor to agricultural works originated in the commandery and referred to the imperial ordinances (*ling* 令), suggesting the empire-wide scope of both policies.[416] References to the failings in opening up wastelands for cultivation ("fields brought under cultivation falling below the required norm" 狠（墾）田少員, "wastelands are not opened up" 草田不舉) also occur in the official's manual from the Yuelu Academy collection, attesting to the ubiquitous application of this policy.[417]

The mentioning of "lending and issuing loans on the outside" (*shi zhai zai wai* 貰責（債）在外) alludes to another general economic policy, that of lending to private individuals "outside" the county court and state economy it was supervising. The practice of government lending will be discussed in more detail in Chapter 4 with regard to the institution of debtor labor. At this point, suffice it to say that government lending was part of a broader tendency toward the engagement between the state economy and private markets that aimed at reducing the running costs of the former and generating profits for the government. In the Yuelu Academy manual, this policy is,

[415] For the expansion of arable land as the major goal of the Shang Yang policies, see Pines, "Agriculturalism and Beyond: Economic Thought of the *Book of Lord Shang*," in Sabattini and Schwermann, eds., *Between Command and Market* (forthcoming). For the migration policies advocated by the Shang Yang "school" of political thought, see Pines, "Waging a Demographic War: Chapter 15 ("Attracting the People") of the *Book of Lord Shang* Revisited".

[416] *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759.

[417] *Yuelu shuyuan cang Qin jian (yi – san). Shiwen xiuding ben*, 39, 40.

again, approached from the point of view of failures in its implementation, as was the "failure to collect fines and loans" (*zi zhai bu shou* 貲責（債）不收).[418]

Improvement in the communication infrastructure was one of the key economic contributions of premodern states.[419] During the late Warring States period and especially after 221 BCE, the Qin embarked on the large-scale program of road- and canal-building. While the construction of the arterial highways whose central lanes (*yong dao* 甬道) were flanked with walls and reserved for the emperor's use was an imperial project, the upkeep of these roads as well as other elements of the transportation infrastructure such as minor roads, bridges, fords, and canals, was the responsibility of local authorities (see Chapter 5).

The combined evidence of official manuals, legal statutes, and administrative circulars provide a glimpse into the range of policies that informed economic measures at the local level. Some of these policies were formulated at the beginning of the self-strengthening reforms in Qin and aimed at the expansion of agricultural and human resources available for military purposes while maintaining a balance between the state extraction and subsistence of farming households. Others, such as the maintenance of communication infrastructure, gained importance with territorial expansion during the late fourth and third centuries BCE. Circulation of state-managed resources through lending became solution to the mounting costs of the state economy at the end of the Warring States era. Some of these policies have long been known to scholars, others were only recognized as such with the recent documentary discoveries. These new texts also revealed

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[418] *Yuelu shuyuan cang Qin jian (yi – san). Shiwen xiuding ben*, 39.

[419] For a general statement of the impact of infrastructure building on economic change in an ancient empire, see, for example, Michael Mann, *The Sources of Social Power*, vol. 1, 272-280. For empire's indirect impact on communication infrastructure through tax incentives, with reference to the imperial Roman grain tribute, see, for example, Michael McCormick, *Origins of the European Economy: Communications and Commerce, A.D. 300–900* (Cambridge: Cambridge University Press, 2001), 85-91.

the ways in which the imperial economic policies were communicated to and implemented at the local level, thereby justifying the analysis of local economic management in terms of broader imperial rationales and goals.

4. Conclusion: the *longue durée* of empire-building in the South

With the Qin conquest of Jiangnan in 222 BCE, the vast territory to the south of the Middle Yangzi fell under the rule of a polity based in north China. This opened the way to "China's march toward the tropics," the southward expansion of Chinese empires that involved mass migration and economic adaptation, transformation of the environment, spread of intensive paddy rice farming, ethnic and cultural amalgamation, and the southward drift of economic centers in continental East Asia.[420] The arrival of the Qin armies and bureaucrats was a momentous event in the history of the region.

The imperial conquest cannot be understood as an isolated event. In the greater Dongting region, roughly coinciding with present-day Hunan Province, the Qin Empire took over the administrative organization and physical infrastructure of state control that was developed by the state of Chu in the course of the preceding centuries. The Chu colonization and state-building, in turn, unfolded along the lines of regional connectivity that can be traced back to the Neolithic cultures that flourished along the Middle Yangzi in the late fourth and third millennium BCE. The present archaeological evidence is hardly sufficient to argue for direct political succession from the Shijiahe walled cities to the Bronze Age state of Chu,[421] but the communication network,

[420] *China's March Toward the Tropics* is the title of Harold Wiens' book published in 1954. This was one of the earliest studies of the persistent southward push of the Chinese empires.

[421] But see Guo Jingyun, *Xia Shang Zhou*, 102-120, who makes the argument for the genetic relationship between the Chu and the Neolithic and early Bronze Age indigenous polities on the Middle Yangzi.

settlement distribution, and exchange routes that took shape in the late Neolithic had an impact on the process of territorial state formation and, eventually, empire-building in the region.

In this sense, the "origins" of the Chu ruling elite are not particularly relevant for understanding this process. Regardless of where they hailed from, on establishing its center in the lower Han River basin, the Chu polity became embedded in the Middle Yangzi interaction zone. Its further expansion was henceforth informed by the physiographic features of the region and affected by the long-standing pattern of interaction between different parts thereof.

Starting from around the middle of the first millennium BCE, the formation of territorial states contributed to the redefinition of the region. The interaction zone with its multiple socio-economic entities and lack of a dominant political power emphasized connections and opportunities embodied in such physiographic features as rivers, lakes, and fertile alluvial plains, and in resources such as metal deposits, timber, and fauna. The quest for resources endured under the territorial states, but they also prioritized security and defendable frontiers. These considerations defined settlement, town-building, and administrative organization. Mountain ridges surrounding the region were crucial to defining the scope of the state and its deployment of military force.[422] Fortresses were built in the upper reaches of the rivers to seal the mountain passes leading into the region, and special units of military administration, the commanderies, were established along the newly defined frontiers to coordinate military efforts.

Operational objectives of territorial states that crystallized during the Warring States period included filling in the demarcated territorial boundaries and preventing enemies from setting foot within these boundaries. Simultaneously, another block of political modalities was taking shape,

[422] In mountainous south China, these ridges fulfilled the same function in defining state territory as the artificial "long walls" did on the plains of north China, particularly in the lower reaches of the Yellow River. For wall-building as a definitive characteristic of territorial state formation in Warring States China, see Li Feng, *Early China*, 183-186.

which can be defined as "imperial" and that is just as important for understanding what happened after the Qin arrival to Jiangnan as the Chu territorial state policies are for understanding the administrative geography of the Qin Empire to the south of Dongting Lake. The Chu effort to project power beyond the region in order to secure control over its long-distance trade connections appear to have influenced the directions of Qin expansion after 221 BCE. The incursion into the Yunnan-Guizhou Plateau in 214 BCE, for example, developed along the route of the attempted Chu conquest of the Dian Lake basin some hundred years earlier. *Mutatis mutandis*, the same applies to the Qin expansion into the Yue lands to the south of Nanling. Control over the trade routes that developed in the late Warring States was among the main objectives of the campaign, and the military administration established by the Chu along the Nanling ridge and inherited by the Qin was instrumental in the military effort.

In some important ways, therefore, the empire-building in the South was already well under way by 221 BCE. Indeed, it was suggested that the Warring States Chu can be considered an empire in its own right due to its territorial extent, social and economic diversity of its populace, and aggressive outward expansion.[423] However, the lack of written sources makes it difficult to inquire into the internal organization of late Warring States Chu, in particular, legal, administrative, and economic differentiation among its territorial constituencies, which is often considered one of the key characteristics of an empire.[424] The imperial territoriality of Qin, on the contrary, is much better understood after the publication of newly excavated legal and administrative documents.

[423] Robin D.S. Yates, personal communication.

[424] According to one study, "the key marker of an "imperial" state was… the degree of "foreign-ness" perceived to exist between rulers and ruled, conquerors and conquered. In the simplest terms, then, the study of empires becomes the study of the subordination of one "state" or social formation by another and the extent to which the conquerors are successful in converting these peripheral zones into a part of their original state, both ideologically and in terms of fiscal, military, and administrative structures." See Jack Goldstone and John Haldon, "Ancient States, Empires, and

At the time when the Qin eliminated the last of the "warring states," the territory of the empire was officially divided into the two zones. The conquest campaigns of the preceding decades nearly doubled the Qin territory and probably more than doubled its population. These new vast acquisitions were perceived and treated as a distinct socio-economic and administrative zone, the "new territories." They were strictly segregated from the "old" Qin lands by guarded cordons that coincided with the Qin frontier before this final round of conquest. The imperial government recognized its lack of control over populations in the "new territories" and treated them as a permanent source of danger, including direct military invasion. Appointment as an official to the "new territories" was considered a form of punishment for functionaries who committed minor offences. To compensate for its inability to control the local population, the Qin government relied heavily on compulsory relocations of manpower. The Qianling County records make it clear that convicts, debtor laborers, and conscripted soldiers constituted the majority of the labor force available to the local government. They were indispensable for all state economic projects such as opening up new land, mining metal resources, or transporting tribute goods. As the following chapter will argue, imperial conquest reinvigorated the Qin system of unfree labor that was otherwise struggling against the logistical odds.

The division into "old" and "new" territories was not intended to become a permanent structural feature of the empire akin of the division into metropole and colonies in the European colonial empires. By the end of the Warring States period, the "old" territories extended far beyond the original Qin heartland in the Wei River basin and included lands that underwent intensive colonization in the course of the previous decades. Although no such record is presently available,

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Exploitation: Problems and Perspectives," in Ian Morris and Walter Scheidel, eds., *The Dynamics of Ancient Empires: State Power from Assyria to Byzantium* (Oxford: Oxford University Press, 2009), 3-29, esp. 17.

it may be assumed that immediately after the Qin conquest of the Chu capital to the north of Middle Yangzi, the Nan ("Southern") Commandery founded there qualified as a "new territory." Some fifty years later, the descendants of the Qin settlers in this area considered themselves "old" Qin subjects, and the Qin government considered their commandery as an "old" territory.

Our documents reveal a number of policies aimed at integrating the newly conquered lands into the body politic. The practice of systematically assigning recruits from a certain "old" commandery to a certain "new" one not only consolidated transportation and communication routes between the two but also contributed to the formation of a specific "garrison society" when newly arriving servicemen found it easier to adapt to the new environment and develop social and economic ties. This policy eventually became part of the colonization toolkit of the Chinese empires. It is well-documented on the north-western frontier of the Han Empire, where the local market for labor developed around the bonds of credit among the soldiers recruited from the same county, who tended to hire each other rather than strangers.[425]

Reshuffling and resettling local communities was another time-honored Qin policy that simultaneously served the purposes of social engineering, identity management, and territorial control. It was extensively implemented on the core lands of Qin at the very beginning of its mid-fourth-century BCE self-strengthening reforms. The Liye documents reflect the implementation of this policy on the "new" lands with an extraordinary degree of detail. Grants of social ranks, likely accompanied by increased entitlements to land and legal privilege, and discontinuation of the Warring States era identity markers in the official record coincided with the fragmentation of local communities and amalgamation of their members, along with the colonists arriving from

[425] See, for example, Li Zhenhong 李振宏, *Juyan Han jian yu Han dai shehui* 居延漢簡與漢代社會 [*The Han documents from Juyan and the Han society*] (Beijing: Zhonghua, 2003), 79-89.

elsewhere, into the new ones. Some of these were set up in the areas of logistical or strategic importance for the state.

The rapid demise of the Qin power in the South after the outbreak of the anti-Qin rebellion in 209 BCE seemingly attests to the failure of these policies. As discussed in the previous chapter, the Qin strategy of incorporating the new territories developed in the course of the gradual expansion of the mid- and late Warring States period. It heavily relied on the state interventions in migration flows, settlement, and economic activity. Transaction costs of such policies became prohibitive after the state territory scaled up in 230–221 BCE. The government's attempts to deploy its managerial structures in the optimal way to coordinate resource extraction and artisanal production, to organize military supply, and to manage large mobile populations of convicts and conscripts probably go a long way in explaining the instability of administrative geography of the empire in general and its "new territories" in the south in particular. It was further exacerbated by the renewed warfare that turned the Middle Yangzi into the rear base of military operations. Fundamentally unbalanced economy and society and chronically unstable administration combined to defeat the earliest effort to integrate the South into a pan-East Asian empire. The empire-building strategy adopted by the early Western Han rulers radically differed from that of the Qin.

One factor that remained virtually unaddressed in the present discussion is the epidemiological environment of the Yangzi Basin, which, according to some scholars, prevented northern settlers from successfully colonizing the region before the early medieval period.[426] This may be partly due to the inadequacy of source material: excavated documents from the Qin South

[426] As authoritatively stated by William McNeill in his book that otherwise contains many inaccuracies in its discussion of East Asia. See McNeill, *Plagues and Peoples* (New York: Anchor Books, 1976), 73-80.

contain surprisingly little evidence on the local infectious diseases, even though the Qianling documents include substantial number of medical prescriptions and instructions, suggesting that sicknesses were very much a part of the local life.[427] The lack of mentions of large-scale dying out of colonists, convicts, and military conscripts may also suggest that the "formidable problems in adjusting to the markedly different patterns of parasitism that prevailed further south"[428] were somewhat exaggerated, at least insofar as the Middle Yangzi is concerned. Further research that would make use of written as well as archaeological materials, particularly human skeletal remains excavated from the ancient cemeteries in Hunan and other regions, will hopefully clarify the role that the disease risks played in the process of empire-building in the South.

Despite the difficulties and setbacks that they encountered in incorporating the conquered regions to the south of Yangzi, the Qin story of frontier management was not that of an utter failure. Erratic territorial configuration of larger administrative units was counterbalanced by the rationalization of economic management at the local level and development of economic policies to counter the challenges of imperial overstretch. The dynamics and chronology of these changes remains largely unclear. Yet the available records suggest that the local governments were drifting away from their role as simple operators of the state-owned assets and inventories toward more holistic management of the local economy that took account of private actors and markets.

Imperial expansion was also an adaptation to the new environments, which involved defining, exploring, charting, and exploiting the resources. This complex process was equally defined by the objective conditions on the ground, on the one hand, and economic practices and

[427] See, for example, *Liye Qin jiandu*, vol. 1, 240, tablet 8-876; 266-267, tablet 8-1040; 270, tablet 8-1057; 293-294, tablet 8-1221; 294-295, tablet 8-1224; 295-296, tablet 8-1230; vol. 2, 339-340, tablet 9-1633+9-2131; 394, tablet 9-1919; 399, tablet 9-1954; 419-420, tablet 9-2097.

[428] McNeill, *Plagues and Peoples*, 77.

institutions, on the other. For example, dryland farming was amenable to the Qin policies of agricultural expansion spearheaded by the state-managed gangs of unfree laborers who opened up wasteland for cultivation. Both paddy rice and dryland agriculture were practiced in the mountainous regions to the south of the Middle Yangzi, but the Qin state appears to have been more readily encouraging and exploiting the latter. In the longer run, the empire's survival and flourishing in the South depended on its ability to tap into vastly more productive rice agriculture, as it depended on discovering, registering, and taxing the local population. But for the initial consolidation of the imperial rule in the new territory equally crucial was the ability to make use of the existing economic patterns to establish within a short period of time a foothold in an unfamiliar environment.

The Qin administrators to the south of the Middle Yangzi also found ways to make the region relevant to greater political-economic projects of the empire. Very soon after they became part of the empire, even the remotest, difficult to access areas such as Qianling County produced and exported materials and wares for circulation in the imperial networks of military supplies and tributary goods. At the local level, the government's quest for mineral resources, and organization and encouragement of metallurgical production seem to have exerted a significant and durable impact, as suggested by the dramatic increase in the use of metal objects in the Liye area from the late Warring States to the Western Han period. One can argue that the reconstruction and expansion of imperial administration to the south of Yangzi under the Han was facilitated by the region's participation in the economic networks of the empire and by the positive spillover effects of the state economy experienced there.

Chapter 4 : Between command and market: the economy of convict labor

Unfree labor looms large in the traditional accounts of the late Warring States and imperial Qin state. According to the "Annals of the First Emperor" in the *Shiji*, seven hundred thousand convicts and, possibly, slaves (*tu* 徒) were simultaneously working at the construction of Apang Palace 阿房宮 and the burial complex of the First Emperor in the vicinity of his capital Xianyang.[1] If this figure is accurate, these two projects alone could have employed between 1.75% and 3.5% of empire's total population and considerably larger proportion of adult males.[2] Some later and admittedly speculatively estimates suggest that as much as half of its subjects ended up sentenced to penal labor under the short-lived Qin Empire, the number that almost certainly should not be accepted at its face value.[3] During the Han era, stories of Qin's willingness and ability to amass an unfree workforce for eccentric enterprises fueled imagination about the First Emperor's despotic rule.[4]

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[1] *Shiji*, 6.256.

[2] Accurate population numbers are lacking for the Qin Empire, and estimate vary between twenty and forty million people. For the low count of 20 million, see, for example, Wang Yumin 王育民, *Zhongguo renkou shi* 中國人口史 [*Demographic history of China*] (Nanjing: Jiangsu renmin, 1995), 70-81. For the high count estimate of some 40 million people in the Qin Empire in 221 BCE, see Ge Jianxiong, *Zhongguo renkou shi* 中國人口史 [*Demographic history of China*], vol. 1: *Daolun, Xian Qin zhi Nanbeichao shiqi* 導論、先秦至南北朝時期 [*Introduction, pre-Qin to the Northern and Southern Dynasties period*] (Shanghai: Fudan daxue, 2002), 300-312. As pointed out in Chapter 1, much of this population probably remained unregistered and therefore passed under the radar of Qin authorities.

[3] *Hanshu*, 24A.1137, *Hanshu*, 51.2327: "Half of those [travelling] on the roads were red-clothed [hard labor convicts]". This passage probably reflects a broadly shared Han estimate of the size of convict population under the Qin, see Zhang Jinguang, *Qin zhi yanjiu*, 543-545.

[4] See, for example, *Shiji*, 6.248.

However, it was only in the wake of archaeological discovery of the Qin-era documents that the pervasiveness of unfree labor in the economic and social organization of the first Chinese empire was fully realized. Excavated statutes and administrative records dating from the imperial Qin and early Western Han periods demonstrated that penal labor was one of the most oft-used punishments in the legal system.[5] It was for a good reason that one of the leading modern scholars of China's ancient and medieval penal law dubbed Qin "the state of convicts."[6] Indeed, an estimated proportion of convict population in one exceptional county of the Qin Empire, Qianling, for which such data is available came surprisingly close to that quoted in transmitted Han-era sources.[7]

Far from being a monolithic mass of a brutally exploited workforce, the convict population was organized into groups differentiated by legal status, economic opportunity, life conditions, degree of freedom of movement, relationship to family members, and other criteria. This convict society was described as an extension of the state-sponsored, rank-based social hierarchy instituted during the mid-fourth century reforms in Qin. Under this system, an individual's merits in the face of the state earned ranks and entitlements to economic resources and privileged legal treatment, and social status was defined by the balance of each subject's merit and obligation with regard to

[5] Consider the treatment of crimes against property (*dao* 盜), one of the main categories of criminal offence in the Qin and Han statutory law. These crimes were graded in five degrees by the value of stolen property. Three graver degrees of offence were punished with convict labor sentences, while remaining two warranted fines. See *Ernian lüling yu Zouyanshu*, 112, slips 55-56; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 462-463. For a list of crimes subject to hard labor sentences according to the early Western Han statutes, see Barbieri-Low, *Artisans*, 128-129; and Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, lxviii-cx.

[6] Tomiya, *Qin Han xingfa zhidu yanjiu*, 107.

[7] Gao Zhenhuan's calculations based on the Liye archival documents suggest that convicts constituted no less than one-third of the total registered population of Qianling County at the southern frontier of the Qin Empire. See Gao Zhenhuan, *Qin Han xingtu zhidu de fazhan*, Chapter 3.

the state.[8] Convicts represented the negative extreme as their 'negative merit' deprived them of the right to dispose of their property and labor, which were confiscated by the state.[9]

Some features of the Qin and early Western Han penal labor, especially the life-long terms of labor sentences and possibility, under certain circumstances, of conversion between private and state dependency when the government purchased slaves from private individuals to incorporate them into the convict labor force or, conversely, leased convicts out to private users, invite the question of whether or not convict laborers should be properly described as state-owned slaves.[10] A decades-long debate led to no clear outcome, so some scholars ended up tacitly eschewing the topic by limiting their discussion of slavery to its private forms.[11] Cautious as it is, such solutions cannot be satisfactory for understanding the socio-economic dynamics of early empires, especially the conspicuous failure of the enormous state-managed system of unfree labor to trigger the

[8] Introduction of this rank-based social order focused on the state is legitimately viewed as the most revolutionary achievement of the paramount Qin reformer Shang Yang. See, for example, Pines, *The Book of Lord Shang*, 67-70.

[9] For the convict statuses as part of a broader rank-based social hierarchy, see, for example, Takatori Yūji 鷹取祐司, "Shin Kan jidai no keibatsu to shakuseiteki mibun joretsu" 秦漢時代の刑罰と爵制的身分序列 [Criminal punishments and rank-based social status order during the Qin and Han periods], *Ritsumeikan bungaku* 608 (2008): 22-42; Arnd Helmut Hafner (=Sueyasu Ando 陶安あんど), *Shin Kan keibatsu taikei no kenkū* 秦漢刑罰体系の研究 [*Study in the penal system of Qin and Han*] (Tokyo: Tōkyō gaikokugo daigaku, 2009), 80-90; Sun Wenbo, "Qin ji Han chu de sikou yu tuli" 秦及漢初的司寇與徒隸 [*Sikou* and convicts during the Qin period and in the beginning of Han], *Zhongguo shi yanjiu* 3 (2015): 73-96, esp. 89-96.

[10] Following the publication of the Shuihudi legal texts in late 1970-s, false dichotomy of "convict" and "slave" statuses resulted in a somewhat dogmatic debate revolving around identification of one of the most frequently mentioned categories of convict laborers, the *lichen qie* 隸臣妾 (conventionally translated in English as 'bondservants' and 'bondwomen'), as either convicts or slaves. See, for example, Gao Min 高敏, *Yunmeng Qin jian chutan* 雲夢秦簡初探 [*A preliminary study of the Qin texts from Yunmeng*] (Zhengzhou: Henan renmin, 1981), 91-108; Zhang Jinguang, *Qin zhi yanjiu*, 520-534. Later, some scholars proposed that the slave and convict statuses were not strictly differentiated before Emperor Wen's pivotal legal reform of 167 BCE. See, for example, Lim Byeong-Deog 林炳德, "Qin Han de guan nubi he Han Wen-di xingzhi gaige" 秦漢的官奴婢和漢文帝刑制改革 [State-owned slaves during the Qin and Han periods and Han Emperor Wen's reform of penal regime], *Jianbo yanjiu* 2006, ed. Bu Xianqun and Yang Zhenhong (Guilin: Guangxi shifan daxue, 2008), 90-103. Others made efforts to identify contexts in which the same term was used to alternatively denote slaves or convict laborers, see Li Li, *"Lichen qie" shenfen zaiyanjiu.*

[11] See, for example, Robin Yates, "Slavery in Early China: A Socio-cultural Perspective," *Journal of East Asian Archaeology* 31.1-2 (2001): 283-331.

development of a private slave economy comparable to that of the Mediterranean empire of Rome.[12]

This seemingly paradoxical situation may be addressed by considering the "slaving" process, of which the penal labor regime was part, in the context of competition between the state and the elites for direct control over human resources in their quest for political power.[13] The relationship between the state-sponsored system of unfree labor and private slavery was not a zero-sum game in which the decline of the former resulted in the respective rise in the latter.[14] Instead of focusing on the narrow definition of laborers working for the Qin and Han states as either "convicts" or "slaves," this chapter analyses economic, social, and political backgrounds of changes in the use of and ideas about free and unfree labor.

Qin institutions of penal labor developed within a broader framework of state economy that relied on the government's control and management of labor extracted from commoners, including the holders of lower degrees of social rank (*jue*)[15], and various degraded groups. Despite

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[12] Martin Wilbur, *Slavery in China during the Former Han Dynasty, 206 B.C. – A.D. 25* (Chicago: Field Museum of Natural History, 1943) remains the most comprehensive English-language account of private slavery in early Chinese empires. Wilbur makes a clear statement about the absence of any evidence for large-scale employment of slaves on private agricultural estates during the Han era. This conclusion remains essentially unchallenged after more than seven decades in spite of numerous discoveries of Qin and Han documents that happened in the meanwhile. As we will see later in this chapter, the new document discoveries provide some evidence for convict operations in agriculture on a larger scale than in other branches of public economy. This evidence, however, is limited to the frontier context, and the overall size of labor gangs is not very impressive.

[13] For the definition of "slaving" as a "strategy focused specifically on mobilizing directly controlled human resources," see Joseph Miller, "Slaving as Historical Process: Examples from the Ancient Mediterranean and the Modern Atlantic," in Enrico Dal Lago and Constantina Katsari, eds., *Slave Systems Ancient and Modern* (Cambridge: Cambridge University Press, 2008), 73.

[14] As suggested in Lim Byeong-Deog, "Qin Han de guan nubi," 98-103.

[15] In his study of the commoner status in the Qin legal documents, Robin D.S. Yates observes that "the technical legal term for commoner status in the Ch'in appears to be *shih-wu* 士五（伍）, literally "member of the rank and file." See Yates, "Social Status in the Ch'in: Evidence from the Yun-meng Legal Documents. Part One: Commoners," *Harvard Journal of Asiatic Studies* 47.1 (1987): 201. While, in the legal context, it perfectly makes sense to draw distinction between the holders of social ranks and those who possessed no such rank, considering only the latter as "commoners," the present study uses the term more inclusively to refer to both the non-ranked members of the society and the holders of lower degrees of social rank, insofar as these two groups participated in the same social structures, such as the

legal distinctions, these laborers were often assigned the same or similar tasks in construction, repair, transportation, etc. The term *yao* 徭 was used to define the service of both conscripted and unfree laborers. The same state agency, the office of the Controller of Works (*sikong* 司空), was responsible for managing various pools of labor.[16]

Yet there was a difference between the labor mobilization of general populace and the work of convicted criminals. In most cases stripped of their land holdings, the latter possessed very limited or no economic autonomy in the face of the state. Their labor was, at least theoretically, available at any time, and they could be transferred wherever the government had need for manpower. This rendered convict labor an indispensable tool of empire building as it allowed the state to transcend seasonal and geographic limitations on labor availability. This was particularly important in the frontier regions where the labor force was hard to procure locally and to retain when brought in from elsewhere.

An indispensable asset in the empire building project, large contingents of laborers who depended on the government for their daily provisioning could also be a burdensome liability. Supply networks were extended into the countryside and wildernesses where convict labor gangs were deployed, and the material resources of the state came increasingly under pressure as ever

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mutual-responsibility groups (*wu* 伍), and were exposed to the same forms of state extraction, particularly the labor services. With the devaluation of social ranks in the wake of mass grants of the lower degrees of rank after the imperial "unification" in 221 BCE, many holders of the lower ranks remained relatively poor, which suggests they were not receiving agricultural land matching the level of their ranks (for the land distribution system, see Chapter 2 and below in this chapter). The line between lower rank holders and households that possessed no rank at all was further blurred. It should also be pointed out that some legal criteria of belonging to the commoner stratum as it is understood in this dissertation did not remain stable over time. For example, "the rank below which persons were required to be enrolled in a mutual-responsibility group of five appear to have changed over time," see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 804, n. 1.

[16] Miyake, "*Sikong* xiaokao – Qin Han shiqi xingtu guanli zhi yi ban" "司空"小考—秦漢時期刑徒管理之一斑 [A study on the office of Controller of Works: management of convicts during the Qin and Han periods], in Miyake, *Zhongguo gudai xingzhi shi yanjiu*, 188-243.

larger manpower had to be provisioned and supervised over ever-increasing distances. By the end of the Warring States era, the Qin government was struggling to find a balance between the much-needed unrestricted access to labor and its mounting costs. Institutional solutions were numerous and diverse and usually amounted to an engagement with private economy, to the long-term effects of encouraging labor commodification and reorienting the state economy toward market-oriented activities.

The chapter starts with an overview of the economy of unfree labor, identifies some economic rationales for compulsory labor regimes, and organizational challenges such regimes faced. The second part proceeds with an analysis of the legal foundations of penal labor in Qin and characteristics of the main groups of unfree laborers. The third part focuses on the best-known local case of the unfree labor economy, that of Qianling County, for which detailed data is available concerning the size of the convict population, role of convicts in the state economy, and organization of their labor. Finally, the concluding fourth part provides an institutional epilogue to the discussion of the economy of convict labor by outlining the process of its decline after the collapse of the Qin, and its impact on the formation of labor markets in early imperial China.

1. The economy of unfree labor systems

By "unfree labor system," I mean the organization of production and exchange that relies on compulsory labor for its functioning on a sufficiently large scale to exert a strong impact on the society and its economy. Virtually all known pre-modern and many modern societies were familiar with some forms of dependent labor, while most economic activities continued to be performed

by free or semi-autonomous workers.[17] Only in a few societies did the compulsory labor become essential for the creation, consumption, and management of elite wealth, for extraction, processing, or production of key economic resources, and for the production of social power. Such societies qualify as based on the unfree labor systems.[18]

1.1. Economic, institutional, and sociopolitical conditions of unfree labor systems

Historically attested unfree labor systems varied enormously in terms of organization, purposes, social and economic background, and geographic and temporal scale. The "corporate slavery" of Ur III,[19] private slavery in ancient Rome and the post-Columbian New World, and penal labor camps in the Stalinist Soviet Union are among the best-known examples of such systems. In spite of obvious differences between these societies, comparative analysis highlights

[17] With the possible but unlikely exception of the Mesopotamian state of the Third Dynasty of Ur (2112-2004 B.C.) that was viewed as a paradigmatic 'command economy' in which the majority of population, male and female alike, were organized into labor gangs working year-round and supplied with food rations from the state granaries. However, more recent scholarship has come to recognize that Ur III laborers varied by their status, and many of them were hiring themselves out to the state and had to be incentivized by sufficient compensation rather than mere compulsion. See Piotr Steinkeller, "The Administrative and Economic Organization of the Ur III State: The Core and the Periphery," in McGuire Gibson and R.D. Biggs, eds., *The Organization of Power: Aspects of Bureaucracy in the Ancient Near East* (Chicago: The Oriental Institute, 1987), 19-41; Marc Van De Mieroop, *A History of the Ancient Near East, ca. 3000-323 BC* (Oxford: Blackwell, 2004), 69-79.

[18] For the definition of structurally central position of slavery in the Roman economy, see Walter Scheidel, "Slavery," in Scheidel, ed., *The Cambridge Companion to the Roman Economy* (Cambridge: Cambridge University Press, 2012), 89-113, esp. 106-108. Insofar as my discussion is focused on the public forms of unfree labor, it ignores the admittedly important question of whether or not household labor, especially the labor of women within households, should qualify as a form of unfree labor or even the model for slavery relations. For a summary of gender-focused analysis of unfree labor, see Orlando Patterson, "Slavery, Gender, and Work in the Pre-modern World and Early Greece: A Cross-cultural Analysis," in *Slave Systems Ancient and Modern*, 32-69, esp. 36-40; and Chris Hann and Keith Hart, *Economic Anthropology: History, Ethnography, Critique* (Cambridge: Polity Press, 2011), 80-81.

[19] For the definition of the Ur III state-managed unfree labor as "corporate slavery," see Robert Englund, "Equivalency Values and the Command Economy of the Ur III Period in Mesopotamia," in John Papadopoulos and Gary Urton, eds., *The Construction of Value in the Ancient World* (Los Angeles: Cotsen Institute of Archaeology, University of California, Los Angeles, 2012), 427-458, esp. 431-432. The term is applicable to the Qin and early Western Han life-long convict labor regime.

some shared economic and sociopolitical rationales as well as institutional conditions for the emergence of unfree labor systems.

The open-resource theory propounded by Herman Nieboer considers the *relationship among the factors of production* a key economic determinant of unfree labor systems. He argued that such systems tend to develop in the societies where labor is scarce relative to land or other crucial "open resources." In effect, wage incentive becomes insufficient to induce free individuals to work for others, and they have to be forced to do so.[20] In spite of criticism, the theory proved useful in explaining the formation of some unfree labor systems once their specific social and geographic conditions were taken into account.[21] Low population density characteristic of many regions of the New World or scarcity of free labor as the result of military attrition and high mobilization rates among citizens in the Roman Republic raised the cost of employing free labor and rendered slavery economically preferable.[22] Similarly, the labor camps in the 1920–50's Soviet Union were primarily deployed in remote and environmentally inhospitable regions where free labor was expensive to procure and where the possibility to shift unfree manpower from one project to another in large numbers and within short periods of time was congruent with the nature

[20] H.J. Nieboer, *Slavery as an Industrial System: Ethnological Research* (New York: B. Franklin, 1971). For a recent summary of this theory, see Patterson, "Slavery, Gender, and Work," 37.

[21] For the criticism of the Nieboer theory, see Stanley Engerman, "Some Considerations Relating to Property Rights in Men," *Journal of Economic History* 33 (1973): 43-65; Patterson, "The Structural Origins of Slavery: A Critique of the Nieboer-Domar Hypothesis from a Comparative Perspective," in Vera Rubin and Arthurn Tuden, eds., *Comparative Perspectives on Slavery in New World Plantation Societies* (New York: New York Academy of Sciences, 1977), 23-25.

[22] For the high rates of citizen military mobilization in the Roman Republic as one of the key conditions for the emergence of slave economy, see Scheidel, "Slavery," 98-99.

of production tasks.[23] The transfer of convicts from densely populated inner commanderies to the military frontier was also common in the early and medieval Chinese empires.[24]

The "open resource" problem is repeatedly emphasized in the key text reflecting the conditions of the Qin state during and immediately after the mid-fourth century BCE reforms, the *Book of Lord Shang*. The land to labor ratio increased dramatically in the wake of the late fourth century territorial expansion.[25] The shortage in the supply of labor was further exacerbated by the belated development of monetary exchange in Qin (see Chapter 2) that impeded mobilization through markets, and even more so by the seasonal limitations on all forms of compulsory and voluntary mobilizations of farmer labor typical for agrarian societies.[26]

Institutional acceptability and practical availability of unfree labor have been highlighted as two preconditions for the emergence of a slavery system.[27] In the Warring States and early imperial China, labor services provided the institutional foundation for compulsory labor. Convict labor was managed by the same government agencies as the labor services of the general populace.[28] Early in its history, penal labor was probably associated with punitive mutilation such

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[23] Paul Gregory, "An Introduction to the Economics of the Gulag," in Paul Gregory and Valery Lazarev, eds., *The Economics of Forced Labor: The Soviet Gulag* (Stanford: Hoover Institution Press, 2003), 1-21.

[24] See, for example, Sun Wenbo, *Qin Han junzhi yanbian shigao* 秦漢軍制演變史稿 [*A history of evolution of military institutions in the Qin and Han empires*] (Beijing: Zhongguo shehui kexue, 2016), 290-300.

[25] In the introduction to his translation of the *Book of Lord Shang*, Yuri Pines compares the estimates of land to labor ratio in the book's chapters dated from mid- and late fourth century BCE. His conclusion is that the problem of insufficient supply of labor exacerbated as the Qin conquests gained momentum in the last three decades of the fourth century. See Pines, *The Book of Lord Shang*, 45.

[26] Even in the societies with considerably higher levels of monetary exchange than in the post-reform Qin, thin labor markets presented a major obstacle to the efficient mobilization of free labor, which encouraged the development of unfree labor systems. The demand for seasonally unrestricted supply of labor served as yet another impetus for the "slaving" process. See Scheidel, "The Comparative Economics of Slavery in the Greco-Roman World," in *Slave Systems Ancient and Modern*, 105-126, esp. 111-112.

[27] Scheidel, "Slavery," 96.

[28] A trajectory from general labor conscription toward an increasingly independent state economy that had a dedicate corps of permanently employed dependent workers in the Inka Empire presents a parallel to the case of the Warring

as tattooing, severing off of the nose and feet, etc. Mutilation was designed to mark a wrongdoer's exclusion from society by diminishing them in the face of their communities and kinship groups, from which they were henceforth excluded.[29]

With the expansion of the state economy in the Warring States era, many forms of penal labor became detached from physical mutilation.[30] The state became responsible for the isolation of criminals from the general society, to the extent that the state-sponsored penal system eventually came to be viewed as the origin of all degraded and unfree populations, including private slaves who were defined as descendants of convict criminals.[31] Indeed, the Qin rulers made an effort to monopolize the slaving process, and legally discourage their subjects from engaging in private enslavement through debt bondage and kidnapping. Instead, private individuals were granted the opportunity to lease the state-managed unfree labor force.

The growing demand for unfree labor in the state economy coincided with the respective increase in its supply as public jurisdiction expanded in the late Spring and Autumn and early Warring States period, and mass warfare unceasingly produced prisoners of war. Criminal

States China and especially the Qin where the proportion of life-long convict laborers in the total labor force available to the state seems to have increased as imperial expansion progressed. For the Inka case, see Terence D'Altroy, "The Inka Empire," in *Fiscal Regimes and the Political Economy of Premodern States*, 31-70, esp. 44-45.

[29] One possible reason for the prevalence of mutilating punishments in the ancient Chinese penal system was state's inadequate capacity to incarcerate criminals for lengthy periods. Effectively, the only means to penalize culprits, apart from killing them, was making them unacceptable members to the communities where they belonged. See Brian McKnight, *The Quality of Mercy* (Honolulu: University of Hawaii Press, 1981), 1. For the importance of communal sanctions against mutilated individuals who were considered having committed grave offenses against their ancestors by failing to preserve their bodies intact, see David Hall and Roger Ames, *Thinking through Confucius* (Albany: State University of New York Press, 1987), 174-175.

[30] For the shift of the Eastern Zhou penal system from mutilating punishments toward labor punishments, see, for example, Zhang Jinguang, *Qinzhi yanjiu*, 551; Han Shufeng 韓樹峰, "Qin Han xingtu sanlun" 秦漢刑徒散論 [Miscellaneous remarks on convict laborers during the Qin and Han periods], *Lishi yanjiu* 3 (2005): 37-52; Miyake, "Laoyixing tixi," 108-110.

[31] See Sun Xidan 孫希旦, ed., *Liji jijie* 禮記集解 [*Collected comments on the Classic of Rites*] (Beijing: Zhonghua, 1998), 12.325-326.

sentence and war captivity became the two major sources of the unfree labor force. Both featured the state as the key agent in distributing access to human resources.

The combination of economic, institutional, and political conditions that favored unfree labor systems had to be reinforced by the developments in coercive and managerial capacity of the respective societies in order to make such systems feasible. The following discussion considers the practical arrangements that allowed reduction in the cost of unfree labor and maximization of its productivity.

1.2. Managing the costs of unfree labor systems

The emergence and functioning of a large-scale compulsory labor system involved transaction costs associated with acquisition and management of unfree manpower. Such systems relied on a coercion apparatus and managerial organization staffed by literate personnel to carry out plan making, recordkeeping, accounting, and processing written documents. Moreover, from the economic perspective, unfree labor arrangements had to possess a comparative productivity advantage vis-à-vis free labor.

Coercion costs and policing

In terms of transaction costs, the fundamental feature of an unfree labor system is its dependence on direct, physical coercion of the labor force. It is the cost of coercion that defines the economic sustainability of such a system. As long as an unfree laborer's "wage" tended toward

subsistence and remained lower than that of a free laborer, the difference between the two had to be greater than the cost of coercion needed to make an unfree laborer work.[32]

One way to analyze coercion costs is to consider it as divided into the cost of acquisition and operation of manpower. The former was primarily incurred in the process of converting populations to the conditions of unfreedom through enslavement, criminal sentencing, etc., while the latter was associated with supervision. The cost of acquisition could be externalized as a byproduct of external (conquest) and internal (maintenance of public order) coercion, which had to rely on technological and organizational developments to produce sufficiently large numbers of unfree laborers.

Marxist historians used to highlight the advent of iron metallurgy as a technological prerequisite for the enslavement of large groups of (usually conquered) populations.[33] While this analysis may appear simplistic and determinist, it captures the link between some key consequences of a new technology, such as the emergence of mass warfare that accompanied population growth and the introduction of cheaper weapons, and the accelerated formation of unfree labor systems, to explain the simultaneous rise of the small peasant household as the basic socioeconomic unit and the expansion of unfree labor economies. The emergence of a vast penal labor machine in the state of Qin precisely at the time when the social order based on the "free" nuclear households was taking shape exemplifies this dynamic.[34]

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[32] For the key role of coercion costs in the economic analysis of slavery, see Yoram Barzel, "An Economic Analysis of Slavery," *Journal of Law and Economics* 20 (1977): 87-110. Barzel uses the term "policing" for coercion and draws distinction between the policing of performance and consumption.

[33] See, for example, Yakobson, ed., *Istorija Vostoka*, vol. 1, 213-229.

[34] For the social order based on individual nuclear households, see, for example, Lewis, *The Early Chinese Empires*, 30-50.

Specific ecological conditions facilitated coercion by making escape difficult for those subject to labor extractions.[35] As suggested in Chapter 2, the prevalence of direct command over labor in the Qin fiscal system could have been a function of its environment that circumscribed population within the Wei River basin. In the course of the late Warring States expansion, settlers on the newly conquered lands were exposed to similar conditions. Their colonies were established in the midst of an unfamiliar and often hostile environment, and they depended on the state for protection, distribution of land, cattle, agricultural tools, and for the organization of irrigational works. The same applied to convicts who were often deployed in the areas where escape or revolt were coterminous with the loss of minimal subsistence and security.

The strategy of deploying unfree manpower within specific natural environments to reduce coercion costs was accompanied by artificial engineering of a hostile social environment that discouraged laborers from escape and reduced potential support for their resistance. Tattooed, branded and otherwise mutilated hard-labor convicts wearing distinctive dress were socially stigmatized and isolated.[36]

Large contingents of guards and managerial personnel had to be employed to make the unfree labor system work. Employment of some unfree manpower to supervise and manage the

[35] Such was probably the case of lower Mesopotamia where the earliest historically attested large-scale unfree labor system developed under the Third Dynasty of Ur. For the insulation of humans from nature as key to the formation of complex societies when populations were "trapped" within artificially created ecologies and denied the escape routes, see Colin Renfrew, *The Emergence of Civilisation: The Cyclades and the Aegean in the Third Millennium B.C.* (London: Methuen, 1972), 13; Mann, *The Sources of Social Power*, vol. 1, 73-75.

[36] Tattooing (*qing* 黥) was the most frequently applied form of mutilation in the Qin and early Western Han criminal law and was often associated with the hardest of labor sentences, "wall-builder (male) or grain-pounder (female)." According to one calculation, under the early Western Han law, thirty-five crimes warranted the punishment of "tattooing and being made a wall-builder or a grain-pounder." See Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, lxxiv-lxxvii. For the distinctive red clothes worn by hard labor convicts, see, for example, *Shuihudi*, 53, slip 147; Hulsewé, *Remnants*, 72. Convicts were legally prohibited from taking off or changing their distinctive clothing. That such actions were officially qualified as an attempt to appropriate a social rank (*jue*) points at the importance of clothes as a marker of social status. See *Yuelu shuyuan cang Qin jian*, vol. 5, 141-142, slips 220-223.

rest had a double advantage of minimizing, first, the cost of employment insofar as an unfree supervisor could be motivated not only by reward but also by the threat of being assigned more onerous labor tasks in case of poor performance, and, second, the cost of training since guarding and managerial "specialists" were already familiar with the conditions of workers in their custody. This explains why the employment of selected members of the compulsory labor force to manage their fellows was ubiquitous across the unfree labor systems.[37]

Operational costs and labor incentives

In a large-scale compulsory labor system, unfree laborers are usually employed for a wide range of activities including both effort-intensive and care-intensive types of work. The former is associated with hard, monotonous, sometimes dangerous labor requiring no or little special skills and easily susceptible to supervision, such as agriculture in labor gangs, mining, and earthworks. The latter refers to the tasks requiring creativity and skills, including managerial ones. For this type of work, supervision is less efficient than reward as an incentivizing means.[38] It was also observed that labor incentives characteristic of the care-intensive types of work are easier to apply in the "open" systems of compulsory labor where cultural norms allow granting unfree laborers a

[37] For the use of slaves in managerial roles in republican and imperial Rome, see, for example, Richard Saller, "Human Capital and Economic Growth," in *The Cambridge Companion to the Roman Economy*, 71-86, esp. 78-79. For the Soviet Gulag labor camps, Paul Gregory observes that a "high proportion of guards were themselves inmates," see Gregory, "An Introduction to the Economics of the Gulag," 11-12. In the Qin and Han convict labor system, holders of certain convict statuses were routinely assigned supervisory or guarding tasks, see, for example, Zhang Jinguang, *Qin zhi yanjiu*, 529; Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 78-79.

[38] For effort-intensive and care-intensive regimes of labor, and for the respective means of incentivizing workers, see Stefano Fenoaltea, "Slavery and Supervision in Comparative Perspective: A Model," *Journal of Economic History* 44 (1984): 635-668; and Scheidel, "The Comparative Economics of Slavery," 108.

considerable degree of autonomy and eventually integrating them into the general society through manumission, quasi-familial arrangements, etc.[39]

The availability of alternative means for incentivizing unfree laborers can significantly contribute to reducing operational costs of an unfree labor system by diversifying the range of assignable tasks and creating the possibility to reduce monitoring expenses and, under certain economic conditions, to increase profits by shifting laborers from effort-intensive to care-intensive types of work. Like other compulsory labor systems, that of the Warring States and early imperial China included groups that were socially located between the unfree and commoner populations and possessed a considerable degree of economic autonomy while at the same time remaining available for labor extraction. These transitional groups were particularly important for the adaptation of an unfree labor system to changing economic conditions.

Operational costs and infrastructural conditions

The use of large contingents of unfree laborers called for a more elaborate management of resources comparative to the short-term, local mobilizations of farmers for labor services. Permanently dependent laborers had to be provided at least a minimal subsistence "wage" regardless of the actual terms of their employment, even during the periods of idleness.[40] Additional effort had to be invested in coordination to make sure that the labor force was assigned

[39] Scheidel, "Slavery," 100-102.

[40] Extra managerial efforts were spent in adjusting the size of food rations to energy expenditure required for various kinds of work. The Qin statutes from Shuihudi, for one example, stipulated an increase of grain ration by one-fourth for male and by one-third for female convicts performing hard labor tasks in construction and agriculture. See *Shuihudi*, 32-34, slips 49-52, 55-56; Hulsewé, *Remnants*, 31-33.

projects as efficiently as possible and that "unemployment" was minimized.[41] Such coordination was conditioned of the infrastructure of communication and provisioning that made possible reallocation of the labor force from one project to another over large distances.

The communication infrastructure relied on society's "scribal capacity" needed to plan and budget labor projects, deploy resources, and monitor their use. Large-scale unfree labor systems usually developed in the societies with high levels of general formal education and/or specialized scribal training.[42] Illustrative of the importance of record keeping for the management of unfree manpower are the documents from the Qin county archive excavated at Liye. "Registers of convict laborers" (*zuo tu bu* 作徒簿) and ration records for convicts, debtors, and other government-dependent laborers are the two largest groups of documents published so far.[43]

A link between the development of transportation infrastructure, on the one hand, and large-scale compulsory relocation of manpower, on the other, is observable in the pre-modern societies with historically the best-known unfree labor systems. Road networks constructed to facilitate the moves of imperial armies served as one of the most important, sometimes the sole medium of long-distance transportation in the Roman, Chinese, and Inka empires that made

[41] Critics of extravagant spending often targeted insufficient employment of the available unfree labor force resulting in its idleness. For a Western Han example from the first century BCE, see *Hanshu*, 72.3076.

[42] The earliest attested unfree labor system in the Ur III state made use of the established tradition of scribal training and exceptionally large numbers of trained clerical personnel. Its operations resulted in the concentration of written documents per unit of time that by far surpasses all other periods of Mesopotamian history. See Van De Mieroop, *A History of the Ancient Near East*, 72; Englund, "Equivalency Values," 431. High levels of literacy in the other two ancient societies that developed enormous unfree labor systems, late republican and imperial Rome and late Warring States and Qin-Han China, became possible partly due to the presence of specialized educational institutions, including those specifically designed to teach slaves the skills necessary for the purpose of managing a large organization. For Rome, see Saller, "Human Capital and Economic Growth," 77-79. For the Warring States and early imperial China, see Yates, "Soldiers, Scribes, and Women: Literacy among the Lower Orders in Early China," in Li Feng and David Prager Branner, eds., *Writing and Literacy in Early China: Studies from the Columbia Early China Seminar* (Seattle and London: University of Washington Press, 2011), 339-369.

[43] For an introduction to these texts, see Korolkov, "Convict Labor in the Qin Empire," 132-156.

possible massive transfers of unfree labor force to the major metropolitan areas, frontiers, and strategically important regions where it was deployed. Empires and the unfree labor systems were mutually reinforcing in terms of their underlying infrastructure of communication and transportation.[44]

Market integration

The connectivity between an unfree labor system and markets had important ramifications for operational costs, long-term sustainability of a system, and its historical evolution. Integration into labor markets facilitated the reallocation of labor and boosted economic efficiency of a compulsory labor system. The market sale of unfree laborers was generally acceptable and practicable under the regime of private slavery, much less so within unfree labor systems dominated by "state slavery" in which the government secured the right to operate dependent labor for itself, sometimes exclusively.[45] This may explain why the systems based on private ownership of unfree labor historically proved themselves more sustainable, and survived for longer periods than those where access to unfree labor was either fully or to a considerable extent monopolized by governments.[46]

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[44] By highlighting yet another aspect of the relationship and interdependence between the coercive activities of the imperial state and the development of large-scale unfree labor systems, this observation supports Scheidel's thesis with regard to Roman slavery that "it was not by coincidence that slavery and empire flourished and declined together". See Scheidel, "Slavery," 106.

[45] For a recent comparative analysis of the unfree labor systems in the ancient Chinese and Roman Empires, which emphasizes the key role of the state as the user of forced labor in China as opposed to the private sector in the Mediterranean world, see Scheidel, "Slavery and Forced Labor in Early China and the Roman World," in Hyun Jin Kim, Frederik Vervaet, and Selim Ferruh Adali, eds., *Eurasian Empires in Antiquity and the Early Middle Ages: Contact and Exchange between the Graeco-Roman World, Inner Asia and China* (Cambridge: Cambridge University Press, 2017), 133-150.

[46] The former is exemplified by the slavery in the Greco-Roman world and in the early modern Atlantic societies, while the latter are represented by the Ur III, Qin, and Soviet Gulag unfree labor systems.

The degree of integration into markets for goods also affected operational costs. While the existence of markets for the products of unfree labor was important for the emergence of private slavery systems, state slavery was often part of a more self-contained, less market-oriented redistributive economy.[47] Sustainability of a "state slavery" system largely depended on the fate of the state economy. Contraction of the latter could cause the decline or collapse of the former. Alternatively, the state economy of unfree labor could develop toward market integration by refocusing on the production of goods for sale in the markets.

2. Institutions of the unfree labor system in the state of Qin

The Qin system of unfree labor was a complex socio-economic organization developed to coerce legally degraded men, women, and children to contribute their labor to the state projects on the permanent basis. The system relied primarily, though not exclusively, on the penal legislation drafted by the Qin lawgivers starting from the mid-fourth century BCE, and on the general administrative apparatus to manage the work. By removing large contingents of its subjects from normal economic production and social reproduction, the state assumed responsibility for their provisioning with food, clothes, and accommodation, as well as for defining their relations with the members of their (former) households and communities.

Various socio-legal statuses within the system of unfree labor corresponded to the power of government's claim on the person of a convict, with the most severe sentences leading to the permanent and total expropriation of material possessions and entitlements to such possessions and forced disruption of family ties and community membership. Milder sentences could leave a

[47] For the availability of markets for the products of slave labor as a precondition for the emergence of a private slavery system, see Scheidel, "Slavery," 96; Scheidel, "Slavery and Forced Labor," 143.

convict's household intact and place of residence, occupation, and economic possessions unchanged while reducing his entitlements under the regime of official land distribution, exposing him to harsher legal treatment in the event of further delinquencies, and subjecting him to priority mobilization for labor services.

Differences in the socio-legal and economic conditions of convicts are explained not only, and probably not so much by the intrinsic logic of the legal system as by the economic problems presented by the operation of the unfree labor system. Supplying convicts even minimal subsistence presented a serious challenge to state finances. As in the case of general labor services (discussed in Chapter 2), the solution was to externalize these costs by putting convicts in charge for their own provisioning, at least some of them for some of the time. The economic opportunities presented to various groups of convicts varied as widely as their legal treatment. While some of them were virtually undistinguishable from the majority of the commoner population in terms of their resources and occupation, in particular, land ownership and engagement in agricultural production, others were assigned specific economic niches to provide themselves subsistence when not employed on the state projects. The degree to which they were allowed to enjoy economic autonomy (or, conversely, suffer in the absence of guaranteed provisioning) was negotiable.

In its quest for equilibrium between the conflicting goals of satisfying the state demand for labor and minimizing the maintenance costs of standing workforce, the Qin government bridged the gap between the state- and privately dependent social groups. Specific groups of convicts were earmarked for leasing out to private individuals willing to take care of their sustenance, while the government was replenishing its labor force, when needed, by purchasing privately dependent persons. That private individuals could apply for the government to purchase their recalcitrant

slaves is reflective of the state's claim to brokerage in the distribution of unfree human resources, which is also manifest in other labor-related institutional arrangements discussed here.[48]

This section, first, summarizes operational and organizational aspects of the Qin system of unfree labor: the duration of convict sentences, terms of employment, and government agencies in charge of supervising, managing, and provisioning convict manpower. Then I discuss the three major groups of convict laborers: hard-labor convicts, comprising the legal statuses of "wall-builders and grain-pounders" (*chengdan* 城旦 and *chong* 舂 for male and female convicts, respectively) and "gatherers of firewood for shrines and white-rice sorters" (*guixin* 鬼薪 and *baican* 白粲, same as above); convicts of "bondservants and bondwomen" (*lichen qie* 隸臣妾) status; and interstitial groups between the commoners and socially degraded unfree populations, which were legally assigned the statuses of "robber-guards" (*sikou* 司寇) and "watchers" (*hou* 候).[49]

It may be worthwhile pointing out that, although these terms might have initially reflected the tasks assigned to convicts in Qin, this no longer applied by the end of the Warring States period when each category of convicts was performing a broad range of works going far beyond what was suggested by its formal title. Moreover, most tasks could be carried out by the convicts of different statuses, for example, both by the hard-labor "wall-builder and grain-pounder" convicts and by the bondservants and bondwomen.[50]

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[48] The collection of judicial formulars and model court cases excavated from the Qin tomb at Shuihudi contains a record titled "Denouncing a slave" (*gao chen* 告臣), in which a slave-owner accuses his slave of arrogance and disobedience and requests the government to purchase this slave and make him hard-labor convict. See *Shuihudi*, 154-155, slips 37-41; Hulsewé, *Remnants*, 193-194.

[49] My translation of these convict statuses follows Barbieri-Low and Yates, *Law, State, and Society.* See, for example, section 1.8 "Types of Punishments and Associated Crimes in the Zhangjiashan Legal Texts" in volume 1, lxviii-cx.

[50] See, for example, Miyake, "Laoyixing tixi," 62.

The section concludes with the discussion of a specific group of state-dependent debtor laborers, whose conditions illustrate the political-economic rationales of the Qin unfree labor system and highlights some important features of the imperial state as an economic actor.

2.1. Operational principles of the unfree labor system in the state of Qin

As a historical predecessor to the much better understood Western Han regime of convict labor, the Qin system was until recently believed to have been built on the same foundations. In the wake of the discovery and publication of the Qin legal manuscripts and administrative documents from Shuihudi, Liye, and elsewhere, it became increasingly clear that the penal labor regime underwent momentous changes during the decades between the proclamation of the Qin Empire and the pivotal legal reforms of the Han Emperor Wen 文帝 (Liu Heng 劉恆, r. 180–157 BCE) that abolished mutilating punishments and the impoundment of families of male criminals.[51] Nowadays, many scholars consider these reforms as the final step in the erosion of the Qin institutions of convict labor, some of which were radically different from those that prevailed under the Western Han.

Duration of labor sentences

The "Treatise on the Criminal Law" (*xing fa zhi* 刑法志) in the *Hanshu* quotes the memorandum submitted by the Chancellor and the Imperial Secretary to Emperor Wen in 167 BCE that outlined the proposed convict curriculum: "After the criminal sentence is pronounced, those who are sentenced to [hard labor as] "intact wall-builders and grain-pounders" [should work

[51] For the Emperor Wen's reform, see *Hanshu*, 23.1097-1100.

for] the full three years, after which they are made "gatherers of firewood for shrines and white-rice sorters." After one year as "gatherers of firewood for shrines and white-rice sorters" they are made bondservants and bondwomen. After one year as bond servants and bondwomen they are made commoners."[52] Approved by the emperor, this memorandum became legal foundation for the fixed-term convict labor regime that endured for the rest of the Han era.

Whether the duration of penal labor sentences was limited or life-long prior to Emperor Wen's reform was subject to debate.[53] Some labor sentences in the excavated Qin and early Western Han statutes explicitly refer to a fixed number of years, as in the following article from the early Western Han "Statutes on the composition of judgments" (*ju lü* 具律) from Zhangjiashan stipulate:[54]

> 隸臣妾及收人有耐罪，鬈（繫）城旦舂六歲。鬈（繫）日未備而復有耐罪，完為城旦舂。
>
> For a bondservant or bondwoman as well as for an impounded person who is guilty of a crime [that matches] undergoing shaving: detain [the criminal among] the wall-builders or grain-pounders for six years. When the days [of the criminal's detention] are not yet complete, and he or she again is guilty of a crime [that matches] undergoing shaving: leave [the criminal] intact and make [him or her] a wall-builder and grain-pounder.

Here the six-years-long term of detention among the hard labor convicts is assigned as an additional punishment to criminals already sentenced to a lighter form of penal labor who

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[52] *Hanshu*, 23.1099.

[53] Arguments on the both sides are summarized in Zhang Jinguang, *Qin zhi yanjiu*, 520-552; and Miyake, "Laoyixing tixi," 64-81.

[54] *Ernian lüling yu Zouyanshu*, 127, slips 90-91. Translation follows Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 501.

committed a new offence. Should they commit another crime before these six years have passed, they would be reduced to the hard labor convict status of "intact wall-builder or grain-pounder," where the word "intact" indicates that no mutilating punishment was to be applied. Scholars have long pointed out that such sentencing can only make sense if the latter punishment, "being left intact and made a wall-builder or grain-pounder," was life-long. This is also suggested by the absence of reference to a specific period of labor punishment, in contrast to the fixed-duration detention (*ji* 繫) among hard-labor convicts.[55]

Other references to fixed-duration labor sentences in the Qin and Han legal manuscripts invariably refer to detention (*ji*) among hard labor convicts, the "wall-builders and grain-pounders," passed as an additional penalty to individuals who committed another crime after having been sentenced to convict labor. Private slaves could also be sentenced to such detention for six up to twelve years, after which they were returned to their owners.[56] Similarly detained among the hard labor convicts for a fixed period of time were individuals working off their debts to the government, including fines and redemption fees.[57] The period of detention could be as short as three years and

[55] See, for example, Zhang Jinguang, "Zhangjiashan Han jian "ju lü" 121 jian paixu bianzheng" 張家山漢簡《具律》121 簡排序辯正 [Corrections concerning the location of slip no. 121 in the "Statutes on composition of judgments" on the Han slips from Zhangjiashan], *Faxue yanjiu* 法學研究 6 (2004): 147-157; and Miyake, "Laoyixing tixi," 69-70.

[56] See, for example, *Shuihudi*, 121, slip 118; Hulsewé, *Remnants*, 154; *Ernian lüling yu Zouyanshu*, 128-131, slips 93-98; 156, slip 165. For private slaves (*nubi* 奴婢) sentenced to the fixed periods of detention among the hard labor convicts before being returned to their owners, see *Yuelu shuyuan cang Qin jian*, vol. 4, 51, slips 37-39. Similar regulations are also contained in the catechistic manuscript "Answers to questions concerning Qin statutes" (*falü dawen* 法律答問, title proposed by the editors) from the Qin tomb at Shuihudi, see, for example, *Shuihudi*, 94, slip 5; 110, slip 73; Hulsewé, *Remnants*,122, 140. The period of penal labor for private slaves was probably limited because their sentencing to life-long penal labor would effectively also have penalized their owners by stripping them of their human property.

[57] Abscondence for the period longer than one year incurred life-long labor sentence as a light labor convict, see *Ernian lüling yu Zouyanshu*, 153-154, slip 157. For the government debtors working off their debts among the hard labor convicts, see *Shuihudi*, slip 52-53, slips 141-142; *Yuelu shuyuan cang Qin jian*, vol. 4, 157, slips 268-269. For a more detailed discussion of the legal status and treatment of debtors, see the final part of this section.

as long as twelve years for various offences, and in the case of debtors they were defined by the amount to be worked off at the fixed per day rate (for a more detailed discussion, see below in this chapter).[58]

Difference between the fixed-term detention among hard-labor convicts and the regular labor penalties is also highlighted by the legal treatment of judicial officials guilty of intentional or unintentional passing of wrong sentences, as illustrated by the following table.[59]

Table 4.1: Legal punishments for the officials guilty of passing wrong criminal sentences

Mistakenly passed penalty (MPP)	**Punishment for responsible judicial official**	
	Intentional	**Unintentional**
Death penalty	Hard-labor penalty after having left foot cut off	Redemption payment for MPP (620 g of gold)
Hard-labor penalty	Same as MPP	Redemption payment for MPP (372 g of gold)
Labor penalty as bondservant/bondwoman	Same as MPP	Redemption payment for MPP (186 g of gold)
Detention among hard-labor convicts for >1 year	Fine of 124 g of gold per year of sentence	Fine of 62 g of gold
Detention among hard-labor convicts for <1 year	Fine of 62 g of gold	

[58] See, for example, *Yuelu shuyuan cang Qin jian*, vol. 4, 51, slips 37-39; *Ernian lüling yu Zouyanshu*, 156, slip 165.

[59] This table is based on Miyake, "Laoyixing tixi," 80-81, tables 1 and 2, which summarize the evidence from the early Western Han "Statutse on the composition of judgments" (*ju lü* 具律) from Zhangjiashan.

The table makes it clear that labor sentences ("wall-builders and grain-pounders" as well as bondservants/bondwomen), for which the duration of penalty is never mentioned in the sources, are very different for the temporal detention among the hard-labor convicts. Mistaken judicial decisions resulting in the former were penalized much more severely than when such decisions resulted in the latter. Scholars quoted this difference as another proof of the principal difference between the fixed-term detention, which was often passed as an additional punishment for culprits who committed new crimes after having already been reduced to convict status, and the regular penal labor sentences, which had no fixed time duration.[60]

That the fixed-duration labor punishments were applied either under specific circumstances or toward specific groups suggests that, apart from these exceptional situations, labor punishments were life-long.[61] Convicts of bondservant status could legally redeem themselves or be redeemed by someone else on the strength of social ranks. The Qin statute "On social ranks for military action" (*jun jue lü* 軍爵律) indicates that bondservant (*lichen*) convicts could participate in military action and earn ranks by severing enemies' heads.[62] Some female convicts could also be redeemed by their male relatives volunteering for five years of frontier service.[63] Periodic

[60] Miyake, "Laoyixing tixi," 81.

[61] For the detailed analysis of the fixed-duration labor sentences associated with "detention" among hard labor convicts, and their relationship to the dominant regime of life-long penal labor, see, for example, Han Shufeng, "Qin Han tuxing sanlun," 37-52; You Yifei, "Shuo "ji chengdan chong" – Qin Han xingqi zhidu xinlun" 說"繫城旦舂"—秦漢刑期制度新論 [On the 'detained among the wall-builders and grain-pounders' – A new analysis of the duration of penal labor sentences under the Qin and Han], *Xin shixue* 20.3 (2009): 1-52; and Miyake, "Laoyixing tixi," 64-81.

[62] *Shuihudi*, 55-56, slips 155-156; Hulsewé, *Remnants*, 83-84. For the military merit as the only conduit to social ranks, see *Shangjun shu zhuizhi*, 4.96. This chapter, "Rewards and punishments" (*shang xing* 賞刑), belongs to the relatively early layer of the *Book of Lord Shang* and is probably dated from the late 4th century. See Pines, *The Book of Lord Shang*, 52-53.

[63] *Shuihudi*, 54-55, slips 151-152; Hulsewé, *Remnants*, 73.

amnesties presented another venue for the termination of labor sentences. In the late Warring States Qin, amnestied criminals were often permanently settled on the newly conquered lands. The convict labor regime was therefore instrumental in supplying the government with a pool of settlers indispensable for control and economic exploitation of the expanding territories (as discussed in Chapter 2).

Terms of employment: full-time and rotational

Life-long labor sentences were not equivalent to the daily employment of convict laborers by the government. In the Qin and early Western Han labor service regime, mobilization was conducted on either full-time (*rong* 冗) or rotational (*geng* 更) basis. The principle applied to virtually all types of service, including military and labor conscription, employment of junior administrative personnel and other functionaries, and some groups of convict laborers. Permanently employed servicemen relied on food and clothes rations for their sustenance, while those serving in shifts were provisioned for the periods of their service only.[64]

Simultaneous application of the two recruitment principles allowed the government balancing expenses on the standing bureaucracy, army, and labor force against the need for trained,

[64] Application of permanent and rotational mobilization principles to various groups of conscripts, government functionaries, and convicts has recently attracted considerable scholarly attention in China and Japan. See, for example, Yang Zhenhong, "Qin Han jian zhong de "rong," "geng" yu gongshe fangshi" 秦漢簡中的"冗""更"與供設方式 ["Rong," "geng," and the forms of provisioning [of labor force] in the Qin and Han documents], in *Chutu jiandu yu Qin Han shehui (xubian)*, 210-222; Miyake, "Laoyixing tixi," 116-117; Miyake, "Qin guo zhanyi shi," 153-170; Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 73-96; Sun Wenbo, *Qin Han junzhi yanbian shigao*, 263-306. It should be pointed out that there is an alternative interpretation of the term *rong* 冗, shared, among others, by Anthony Barbieri-Low and Robin D.S. Yates who translate the compound *rong zuo* 冗作 as "to perform services without fixed duties" (see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 930, n. 1). In the context of arstisanal production, Barbieri-Low interprets *rong* artisans (*rong gong* 冗工) as "odd-job men or women who had no fixed task but instead floated among several different stages of the production process as needed," see Barbieri-Low, *Artisans in Early Imperial China*, 78. Elsewhere, however, Barbieri-Low and Yates appear to be making attempt to reconcile the two interpretations by translating the verb *rong* as to "assign full-time, non-staff service," see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1095.

professional cadres and specialists. While the majority of technical specialists such as scribes (*shi* 史), diviners (*bu* 卜), and invocators (*zhu* 祝) were serving in shifts of duty, some outstanding members of these groups who were "naturally good" at their jobs were singled out for full-time service.[65] Same applied to the junior administrative personnel such as petty officials (*li* 吏) and assistants (*zuo* 佐) at the offices and bureaus of county government.[66] Artisans conscripted for the service at government workshops could also be employed on the rotational or full-time basis. By the Western Han times, the latter were routinely referred to in official documents as "full-time artisans" (*rong gong* 冗工).[67]

Similarly to the abovementioned government employees, some labor convicts also served on either full-time or rotational basis. The "Statutes on abscondence" (*wang lü* 亡律) from the Yuelu Academy collection of Qin documents overtly juxtapose these two groups:[68]

> 及諸當隸臣妾者亡，以日六錢計之，及司寇冗作及當踐更者亡，皆以其當冗作及當踐更日，日六錢計之，皆與盜同灋。
>
> …as well as all those who match [being made] bondservant and bondwomen convicts abscond, one day [spent in abscondence] should be counted at the rate of six coins, and

[65] See the "Statute on scribes" (*shi lü* 史律) in the early Western Han collection of legal statutes from Zhangjiashan: *Ernian lüling yu Zouyanshu*, 301, slip 479; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1094-1095.

[66] See, for example, *Shuihudi*, 37-38, slips 72-75; 39, slips 80-81; Hulsewé, *Remnants*, 47, 49-50. The latter article stipulates that the full-time officials (*rong li* 冗吏) working at an office are held responsible for the shortfalls discovered during the checking (*xiao* 效) or accounting (*ji* 計) procedure along with the chief of the respective office (*guanzhang* 官長).

[67] "Full-time artisans" are recorded on the bone labels excavated from the remains of the Weiyang Palace 未央宮 near the Western Han capital Chang'an, see Zhongguo shehui kexueyuan kaogu yanjiusuo 中國社會科學院考古研究所, *Han Chang'an Weiyanggong 1980-1989 nian kaogu fajue baogao (shang)* 漢長安未央宮 1980−1989 年考古發覺報告（上） [*Archaeological report on the excavations of the Weiyang Palace near the Han capital Chang'an in 1980-1989*] (Beijing: Zhongguo da baike quanshu, 1996), 107-108, 345:3:01277, 349:3:31746, 353:3:06449. For a discussion, see Yang Zhenhong, "Qin Han jian zhong de "rong," "geng," 217-218.

[68] *Yuelu shuyuan cang Qin jian*, vol. 4, 44, slips 17-18.

> [when] "robber-guard" convicts serving on the full-time basis as well as those serving in shifts of duty abscond, for all of them one day [in abscondence] counts at the rate of six coins, be it a day of their full-time service or a day on which they should have been performing their turn of duty. In all these cases, [they should be sentenced] according to the same principle as robbers.[69]

The article differentiates between the "robber-guard" convicts serving on the full-time and rotational basis. The latter were held responsible for the days spent in abscondence during the period when they were supposed to work their shifts of duty. Should they abscond during the period when they were not employed by the government, they would be sentenced according to a different principle, resulting in a more lenient sentence.[70]

Along with the "robber-guards," bondservant and bondwomen convicts were employed alternatively at full-time or rotational service. In artisanal occupations, the labor of the former was valued higher than that of the latter, as stipulated in the "Norms for artisans" (*gongren cheng* 工人程) from Shuihudi:[71]

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[69] The final phrase suggests that the absconders were sentenced on the basis of accumulated amount of what they 'stole' from the government, each day in abscondence counting for six coins. In the early Western Han times, offences against property were classified into five groups defined by the value of the goods stolen. The most severe punishment for this type of crime amounted to tattooing and hard labor sentence, the most lenient one warranted the fine of one *liang* (ca. 15.5 g) of gold. See *Ernian lüling yu Zouyanshu*, 112, slips 55-56; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 462-463. The same norms were probably also applied in the Qin law.

[70] According to the early Western Han law that was likely repeating the Qin regulation, unauthorized absconding from one's official place of residence was punished by detention among hard labor convicts until the reparation was worked off for the abscondence periods less than one year, and with shaving and conversion to bondservant or bondwoman light labor convict for the period longer than one year. See *Ernian lüling yu Zouyanshu*, 153-154, slip 157; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 580-581. According to the principle set up in the Zhangjiashan "Statute on robbery" (*dao lü* 盜律), the harsher of these punishments was warranted for the robbery of goods valued 110 to 220 coins (*Ernian lüling yu Zouyanshu*, 112, slip 55). This means that just 19 days in abscondence during the shift of duty would earn light labor convict the same penalty as assigned for more than a full year of abscondence for a commoner. Insofar as the legal status of 'robber-guards' was very close to that of commoners, it may be speculated that their abscondence when unemployed by the government was punished less severely than if they absconded during their shift of duty.

[71] *Shuihudi*, 45-46, slip 109; translation follows Hulsewé, *Remnants*, 61, with some modifications.

冗隸妾二人當工一人，更隸妾四人當工【一】人，小隸臣妾可使者五人當工一人。

For bondwomen working on the full-time basis, [the labor of two bondwomen] is equivalent to that of one artisan. [The labor of] four bondwomen taking their turn of duty is equivalent to that of [one] artisan. For non-adult bondservants and bondwomen who can be employed, [the labor of] five persons is equivalent to that of one artisan.

In case of emergency, convicts working in shifts of duty could be mobilized for the full-time service. The Qin "Statute on granaries" (*cang lü* 倉律) instructs that in such cases they had to be issued food rations in accordance with the statutes,[72] implying that bondservant and bondwomen convicts serving on the rotational basis were not issued rations during the time they were not employed by the government. In other words, these convicts possessed some economic autonomy to support themselves.

Substitutability of various pools of labor

An instruction circulated by the governor of Dongting Commandery among subordinate officials in 219 BCE, quoted in Chapter 2, prescribed the order of mobilization for various labor pools available for government's service. These pools included convicts, debtors, garrison soldiers, and conscripted farmers. While the central government and its deputies in province were willing to minimize general labor conscriptions, these groups of laborers were in principle substitutable for each other for key tasks as transportation and construction.[73] The actual composition of labor

[72] *Shuihudi*, 33, slip 54; Hulsewé, *Remnants*, 32.

[73] For the use of various labor pools for transporting grain and other materials for the government, see the above-quoted circular by the governor of Dongting Commandery (*Liye fajue baogao*, 192) and the article of the "Statute on labor services" (*yao lü*) from the Yuelu Academy collection (*Yuelu shuyuan cang Qin jian*, vol. 4, 150-151, slips 249-250). For the employment of soldiers in transportation tasks, see *Liye Qin jiandu*, 341, tablet 8-1510. For hard labor convicts involved in building construction, see, for example, *Shuihudi*, 33-34, slips 55-56; Hulsewé, *Remnants*, 32-

the force depended on availability of laborers at each location. Accordingly, unfree manpower was of particular importance for the state in the areas where there was a lack of registered households subject to labor levies.

Convicts and private slaves

Much of the debate about the nature of Qin unfree labor system revolves around the fuzziness of the dividing line between the convict and private dependent statuses. It was already mentioned that bondservant and bondwomen convicts could be leased out to private individuals willing to supply them with food and clothes.[74] According to the early Western Han law, impounded family members of hard-labor convicts were reduced to the bondservant and bondwomen statuses.[75]

A legal case dating from the late Warring States Qin (246 BCE), which was still considered relevant at the beginning of the Western Han insofar as it was included in the Zhangjiashan collection of doubtful cases, suggests that impounded family members of a criminal could be sold to private individuals, probably as slaves. According to this case, wife and children of a man mistakenly sentenced to a hard-labor punishment were first sold to a private buyer and then

33. For labor conscripts engaged in the same task, see *Shuihudi*, 47-48, slips 115-124; Hulsewé, *Remnants*, 63-66; and *Yuelu shuyuan cang Qin jian*, vol. 4, 118, slips 151-153.

[74] *Shuihudi*, 32, slip 48; Hulsewé, *Remnants*, 30-31.

[75] *Ernian lüling yu Zouyanshu*, 255-256, slip 435; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 927. The editors of the Zhangjiashan texts suggest this article was copied in the "Statutes on finance" (*jinbu lü*) by mistake, see *Ernian lüling yu Zouyanshu*, 256, comm. 2. Barbieri-Low and Yates point out that "one could argue that the sentence belongs as an independent item of the "Statutes on Impoundment."" They also point out that, in other statutes from the Zhangjiashan collection, "'impounded persons' (*shōu rén* 收人) and bond servants and bondwomen are mentioned as two separate categories, side by side, with near-equal status before the law. This leaves open the question of whether all impounded persons were really subsumed under the statuses of 'bond servant' and 'bondwoman' and reveals further evidence of inconsistency in the early-Han statutes." See Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 941-942, n. 90.

redeemed by the government after the convict successfully appealed his sentence.[76] This case suggests not only that some people of convict statuses (or a status that near-equaled that of convicts) could be sold to private owners but also that the state was keeping track of their whereabouts and retained the right to buy them back.

The Liye documents reveal that local governments were routinely purchasing unfree labor force from private individuals. A special ordinance prescribed monthly reporting on the number of men and women acquired this way:[77]

> 卅三年二月壬寅朔朔日，遷陵守丞都敢言之：令曰恒以朔日上所買徒隸數· 問之，毋當令者。敢言之。
>
> Thirty-third year [of King Zheng, i.e., the First Emperor], in the second month, on the day *ren-yin* (March 11th, 214 BCE), which was the first day of the month, Du, the provisional vice-magistrate of Qianling County, dares to state this: Ordinance prescribes that on the first day of [each] month the number of dependent laborers purchased [by the county government offices] should be submitted [to superior authorities]. •We inquired, and there are no [such persons] who fall under this ordinance. Dare to state this.

The term *tuli* 徒隸, here translated as "dependent laborer," is otherwise used in the Liye documents for convict laborers,[78] with the exception of "robber-guards" (*sikou*) who are singled out due to their specific legal status setting them apart from the rest of convict population.[79] A

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[76] *Ernian lüling yu Zouyanshu*, 359-363, slips 99-123; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1305-1331. For the early Western Han "Statute on impoundment" (*shou lü* 收律), see *Ernian lüling yu Zouyanshu*, 159-161, slips 174-181; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 594-606.

[77] *Liye Qin jiandu*, vol. 1, 93-94, tablet 8-154.

[78] See, for example, *Liye Qin jiandu*, vol. 1, 20-21, tablet 6-7; 68-69, tablet 8-130+8-190+8-193; 168, tablet 8-490+8-501; 169-170, tablet 8-495; vol. 2, 122-124, tablet 9-436+9-464; 380, tablet 9-1872.

[79] See Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 73-96. An alternative view on the status of *tuli* is maintained by Robin D.S. Yates who believes that they were "permanent government slaves" because "the county officials bought them on the open market," see Yates, "The Economic Activities of a Qin Local Administration: Qianling County, Modern Liye, Hunan Province, 222–209 B.C.E.," in Sabattini and Schwermann, eds., *Between Command and Market*

statute from the Yuelu Academy collection of Qin documents lists the groups of convicts that fell within the category of *tuli*:[80]

> • 戍律曰：城塞陛鄣多陕（决）壞不脩，徒隸少不足治，以閒時歲一興大夫以下至弟子、復子，無復不復，各旬以繕之。盡旬不足以索（索）繕之，言不足用積徒數屬所尉，毋敢令公士、公卒、士五（伍）為它事，必與繕城塞。歲上舂城旦、居貲續〈贖〉、隸臣妾繕治城塞數用徒數及黔首所繕用徒數于屬所尉，與計偕，其力足以為而弗為及力不足而弗言者，貲縣丞、令、令史、尉、尉史、士吏各二甲。
>
> The "Statutes on the frontier servicemen" state: [When] walls, fortifications, terraces, and barriers have many breaches and breaks and are poorly maintained, [but] convicts are too few and insufficient [in numbers] to carry out the repairs, [then] during the slack season and [no more than] once per year mobilize [the holders of social ranks] below *dafu* (5th rank) and down to [private] disciples and sons [of those] exempted [from services].[81] Those who do not have exemption [from labor services] should not be exempted. Each [should be mobilized] for ten days to repair [the damaged structures]. [When] ten days are over, but it was not sufficient to complete the repairs, report the insufficiency in [terms of] the aggregate number of laborers to the commandant, within whose jurisdiction [the respective labor project is carried out].[82] Do not dare to order

(forthcoming). As I will argue below, the fact that some *tuli* were bought from private owners does not by itself mean that *tuli* were different from convicts. Instead, I argue that private slaves acquired in this way were integrated into the convict labor force to become *tuli*, a term that was used to indicate convicts in general.

[80] *Yuelu shuyuan cang Qin jian*, vol. 4, 130-131, slips 188-191.

[81] The editors of the Yuelu Academy texts interpret *dizi* 弟子 as private disciples, who were probably considered as junior household members of their masters along with the sons of those exemted from labor services (*fuzi* 復子). See *Yuelu shuyuan cang Qin jian*, vol. 4, 166, comm. 70, 71.

[82] I have two possible explanations for the requirement to report the commandant (*wei* 尉), who in this case was probably the senior official in charge of a county or commandery military, about the insufficiency of labor force and/or inability to complete the repairs on time. First, the statute deals with the military fortifications, probably at the frontier (considering the title of the statute), so the commander of the local military had to be informed about the conditions of fortifications. Second, commandants were in the position to reinforce the "civilian" labor force with soldiers under their command. The latter explanation is supported by the statute's requirement to inform the commandant of the "insufficiency in the aggregate number of laborers" (*yan bu zu yong ji tu shu* 言不足用積徒數). These "aggregate" numbers (*ji shu* 積數) were the man-days (or household-days, as in the case of "aggregate [number of] households, *ji hu* 積戶), see, for example, Wang Wei 王偉 and Sun Zhaohua 孫兆華, "Jihu" yu "jianhu": Liye Qin jian suojian Qianling bianhu shuliang" "積戶"與"見戶"：里耶秦簡所見遷陵編戶數量 ["Cumulative household numbers" and "actual household numbers": household numbers in the Liye Qin documents], *Sichuan wenwu* 四川文物 2 (2014): 62-67.. These numbers were useful for planning labor projects in terms of the size of workforce and duration of time needed to finish it.

> [the holders of] *gongshi* [rank] (1st, lowest rank), common soldiers, and commoners to perform any other [labor] tasks, [all of them] must participate in repairing walls and fortifications. Every year submit [the report on the] numbers of "grain-pounders and wall-buildiers," persons working off their fines and redemption fees, and bondservants and bondwomen who repair walls and fortifications; and the number of black-headed ones (i.e., general populace) who repair [walls and fortifications], to the commandant, within whose jurisdiction [the officials supervising these labor projects are stationed]. [These reports should be] put together with the accounts (in order to be submitted to the higher authorities?). [When the labor] force is sufficient [for the local authorities] to do [the project] and they do not do, or when the force is insufficient and they do not report [about the insufficiency], fine the [following] county [officials] two suits of armor each: vice-magistrate, magistrate, magistrate's scribes, commandant, commandant's scribe(s), and military officers.

According to this statute, the labor force available to the local officials consisted of two main pools: the *tuli* and the general populace levied for urgent repair of military fortifications. Emergency works dealt with in the statute fell outside the scope of regular labor services (*yao*) and were putting additional pressure on the local population (see Chapter 2), hence lawgiver's demand to restrict such labor extractions to ten days per year and to carry out the works during the slack season, to reduce the negative impact on agricultural production. Before conscripting general populace for works, the local governments had to make sure that all available convicts (*tuli*) had already been employed. The statute lists these convict groups, which are discussed in more detail latter in this chapter: the "wall-builders and grain-pounders," bondservants and bondwomen, and debtor laborers who were for many purposes treated as convicts (see below). The requirement to report on the use of these two distinct pools of labor was probably, at least partly, dictated by the central government's willingness to make sure that the county authorities were not mobilizing general populace for works when convicts were available.

Now let us return once again to the above-quoted Qin ordinance on the purchase of *tuli*, which was excavated as a part of the Qianling county archive. In my opinion, it is dealing with the local governments purchasing some debendent laborers, probably from private sellers, to

incorporate them into the convict labor force, and then reporting to their superiors. Another Liye document mentions the submission, most likely by the county authorities, of regular reports on the purchase of *tuli* to the commandery governor.[83] The office of County Treasury (*shaonei* 少內) disbursed funds used in such purchases, as attested by the document that records an amount of 33,000 coins spent in 218 BCE. It is unclear if this expense was incurred in a single transaction or accrued over a period of time.[84]

While the identity and status of dependent laborers purchased by the local government offices is unclear, I suggest they were privately-dependent persons, most likely slaves. The possibility of transfer between the privately dependent and state-dependent labor force, and of integrating private slaves acquired in this way into the convict labor force were important features of the Qin regime of unfree labor.

The Liye documents provide no hints to the circumstances of slave acquisition by the Qianling county government. The model court record from Shuihudi suggests some slaves were purchased in response to the application by their owners and were directly incorporated into the convict labor force by being assigned a convict status such as that of "wall-builder."[85] Others were kept separate from the convict population and constituted a distinct category of unfree manpower.

[83] Another document from Liye states this explicitly: "On the first day of [each] month, submit the numbers of purchased laborers to the office of [commandery] governor" 以朔日上所買徒隸數守府, see *Liye Qin jiandu*, vol. 1, 197, tablet 8-664+8-1053+8-2167.

[84] *Liye Qin jiandu*, vol. 2, 300-301, tablet 9-1406. The first line of document reads "Twenty-ninth year [of King Zheng, i.e. the First Emperor], the Lesser Treasury" 廿九年少內, suggesting this may have been an annual report.

[85] *Shuihudi*, 154-155, slips 37-41; Hulsewé, *Remnants*, 193-194.

The Qin "Statutes on the establishment of officials" (*zhi li lü* 置吏律) from the Yuelu Academy collection list some of these groups:[86]

> 置吏律曰：有辠以罨（遷）者及贖耐以上居官有辠以廢者，虜、收人、人奴、羣耐子、免者、贖子，輒傳其計籍。其有除以為冗佐、佐吏、縣匠、牢監、牡馬、簪裹者，毋許。君子、虜、收人、人奴、羣耐子、免者、贖子，其前卅年五月除者勿免，免者勿復用。
>
> The "Statutes on the establishment of officials" state: Those who are guilty of crimes punished with exile and redemption from shaving[87] or less severe [punishments], who reside at the government offices [to work off the amount of their redemption payment],[88] in case they committed [further] crimes and should be removed [from these offices], as well as war captives, impounded [relatives of criminals], people's male slaves, children of all those [sentenced to] shaving, those who have been exempted [from their criminal sentences], and children of those [sentenced to the payment of] redemption fees, should immediately be enrolled in the respective accounts and registers.[89] [When] there are those [among them] who were appointed as full-time assistants [to the government

[86] *Yuelu shuyuan cang Qin jian*, vol. 4, 138-139, slips 212-214.

[87] That is, the payment of an amount of money in redemption from the respective punishment. Redemption (*shu* 贖) constituted a specific category of monetary penalty in the Qin and Han law, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, 207-208. In the beginning of the Western Han period, redemption payment for the crime that matched shaving and conversion to light labor convict amounted to twelve *liang* (ca. 186 g) of gold, see *Ernian lüling yu Zouyanshu*, 140, slip 119; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 510-511. For the list of crimes punished with exile and redemption from shaving according to early Western Han law, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, lxxxiii and xci-xciii, respectively. The latter punishment was especially broadly applied and was passed for thirteen different criminal offences.

[88] The term *ju* 居 could refer either to the actual fact of residence or to a debtor performing labor for a government agency in payment of his or her debt at a fixed per day rate. For the latter use, see, for example, *Shuihudi*, 51-52, slips 133-140; Hulsewé, *Remnants*, 67-71. Criminals sentenced to redemption payments could also work off the respective amounts, a situation that seems to be implied in the present case.

[89] The compound *ji ji* 計籍 also occurs on the tablet 8-1624 from Liye, see *Liyi Qin jiandu*, 370. It probably refers to two types of accounting documents, annual accounts (*ji* 計) submitted by individual offices (*guan*) and territorial administrative units and containing information about various resources and materials in their custody, while registers (*ji* 籍) were primarily associated with human resources, including government functionaries and servicemen who were receiving grain rations and salaries, and common households subject to labor levies and taxes. A special group of registers kept track of the distribution and conditions of agricultural land, see *Ernian lüling yu Zouyanshu*, 223-225, slips 331-336; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 798-799. For various types of registers found among the Qin and Han-era excavated documents, see Li Junming 李均明, *Qin Han jiandu wenshu fenlei jijie* 秦漢簡牘文書分類輯解 [*Collected and annotated official documents on bamboo and wood from the Qin and Han periods, by category*] (Beijing: Wenwu, 2009), 341-391.

> offices], assistants to the [low-ranked] officials, county [supervisor of] artisanal works, inspector of prisons, equerries, or supervisor of horses,[90] this is not to be permitted. *Jun-zi*[91], war captives, impounded [relatives of criminals], people's male slaves, children of all those [sentenced to] shaving, those who have been released [from their criminal sentences], and children of those [sentenced to the payment of] redemption fees, in case they were appointed [to these offices] before the fifth month of the thirtieth year [of King Zheng, i.e., the First Emperor] (June-July 217 BCE) should not be removed from office. Those who have been removed from office should not be used again.

Leaving aside for the moment the various groups of state-dependent unfree individuals employed at low-level managerial and administrative positions (see section 3 in this chapter), let us pay attention to the statute's reference to "people's male slaves" (*ren nu* 人奴), which was one of the common terms for private slaves in the Qin documents.[92] Here, however, these private slaves are clearly held in government custody, suggesting they have been sold by their owners or otherwise acquired by the state from private individuals.[93] Instead of being incorporated into the convict labor force, these slaves retained their distinct status and could be assigned managerial and administrative tasks, at least until such assignments were banned in 217 BCE or soon thereafter.

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[90] The editors of Yuelu Academy texts point out that the term *zanniao* 簪褭 ("embellished horse") here clearly refers to an occupation in horse breeding and not to the third rank in the Qin scale of social ranks, see *Yuelu shuyuan cang Qin jian*, vol. 4, 171, n. 182. Note that during the late Warring States period the third social rank was called *zouma* 走馬 ("horse runner") and had even more explicit association with the management of horses. See Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1327-1328, n. 53.

[91] In the Qin official documents from Shuihudi and the Yuelu Academy collection, the term *jun-zi* 君子 (nobleman, gentleman) is applied to local officials and probably also to the commanders of units of labor conscripts, see Hulsewé, *Remnants*, 65, n. 11; Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 279, n. 1290. Neither of these readings seems to be applicable in present case where *jun-zi* is listed along with socially degraded groups of former convicts and their children, slaves, impounded relatives of criminals, etc. One can speculate the two characters crept in by mistake, or that they should read together with the following graph *lu* 虜 to indicate war captives taken by *jun-zi*.

[92] See, for example, *Shuihudi*, 51, slips 134-135; 110-111, slips 73, 74; 126, slip 141; *Yuelu shuyuan cang Qin jian*, vol. 4, 44, slip 16; 157, slips 269-270; *Liye Qin jiandu*, 318, tablet 8-1379. Qin terminology for private slaves is discussed in Yates, "Slavery in Early China," 304.

[93] Slaves along with other household property could be confiscated for criminal offences, as specified in the model record from Shuihudi for the legal procedure of sealing and guarding property subject to confiscation. See *Shuihudi*, 149, slips 8-12; Hulsewé, *Remnants*, 184-185.

The statute suggests that local governments purchased private slaves not only to replenish labor force, but also to acquire specialized personnel who could be put in charge of managing convicts (as in the case of "inspectors of prisons") or assigned other tasks that required training and skills, even though the lawgiver militated against such appointments. As we will see latter in this chapter, in terms of the tasks listed in the Yuelu statute, slaves were treated on par with bondservant and bondwomen convicts. Considering that bondservants and bondwomen were also the convicts that could be leased out to private individuals, it was at the level of these, relatively "privileged" group of convicts that the state-dependent and private forms of unfree labor merged and where individual could be transferred from private to public bondage.

2.2. Managing the unfree labor: local government agencies

By the late Warring States period, the unfree labor system was run by specialized agencies that applied standardized bureaucratic procedures to distribute human resources within the state economy. Other government offices also employed convicts, but they did not maintain permanent contingents. The two agencies, the Office of Granaries (*cang* 倉) and the Office of the Controller of Works (*sikong* 司空), were responsible, respectively, for the management of bondservants/bondwomen and hard-labor convicts ("wall-builders and grain-pounders" and "gatherers of firewood for shrines and white-rice sorters"). The Controller of Works was also in charge of government debtors and for those sentenced to fixed terms of detention among the hard-

labor convicts.[94] The latter two groups were often working side by side with hard-labor convicts, receiving same food rations, and probably residing at the same facilities as them.[95]

Other offices and sub-county administrative units (districts) had to apply for the Granaries and the Controller of Works to provide the labor force employed in their quotidian operations. The recently published imperial Qin ordinances from the Yuelu Academy collection require the county offices who used an unfree workforce to submit accounts concerning the tasks performed by the convicts and the duration of their labor:[96]

> ●令曰：縣官□□作徒隸及徒隸免復屬官作□□徒隸者自一以上及居隱除者，黔首居▨及諸作官府者，皆日勶薄（簿）之，上其廷，廷日校案次編，月盡爲最（最），固臧（藏），令可案殹（也）。不從令，丞、令、令史、官嗇夫、吏主者，貲各一甲。
>
> The ordinance states: When the offices at the county… working convicts, and the convicts are released [from the office where they worked] and returned to the office in charge of them (that is, the offices of Granaries and the Controller of Works, see below), then working… for one or more convicts; also when those working as "hidden in the offices"[97] are released from works, and when commoners are stationed for work… and those working at the offices and storage facilities; for all of them, separately prepare

[94] This distribution of responsibilities between the offices of Granaries and the Controller of Works was recently demonstrated on the basis of the Liye documents, see, for example, Jia Liying 賈麗英, "Liye Qin jiandu suojian "tuli" shenfen ji jianguan guanshu" 里耶秦簡所見"徒隸"身分及監管官署 [The status of 'tuli' and offices in charge of their management as reflected in the Qin documents from Liye], *Jianbo yanjiu 2013*, ed. Bu Xianqun and Yang Zhenhong (Guilin: Guangxi shifan daxue, 2014), 68-81; Gao Zhenhuan, "Cong *Liye Qin jian (yi)* "zuo tu bu" guankui Qindai xingtu zhidu" 從《里耶秦簡（一）》"作徒簿"管窺秦代刑徒制度 [Viewing the Qin regime of convict labor from the "Registers of convict laborers" published in the first volume of *Liye Qin jian*], *Chutu wenxian yanjiu* 12 (2013), 132-143; Korolkov, "Convict Labor in the Qin Empire," 132-156. In retrospect, it is clear that the same division is manifest in the Qin laws: "Statute on the Controller of Works" in both its Shuihudi and Yuelu Academy recensions is exclusively concerned with hard labor convicts, debtors, and people temporarily detained among hard labor convicts. See *Shuihudi*, 49-55, slips 125-152; Hulsewé, *Remnants*, 66-76; *Yuelu shuyuan cang Qin jian*, vol. 4, 123, slips 167-168; 153-159, slips 257-275.

[95] The "Statute on the Controller of Works" from Shuihudi refers to bondservants, bondwomen, "robber-guards," and those working off their fines and debts while being detained among hard labor convicts working together with them and being clothed and fed like them, see *Shuihudi*, 52-53, slips 141-142; Hulsewé, *Remnants*, 66-67.

[96] *Yuelu shuyuan cang Qin jian*, vol. 5, 181, slips 251-253.

[97] See n. 140 in Chapter 1.

daily accounts and submit them to the county court. The [county] court has to collate [these accounts] for each day and compile them according to the sequence [of days]. At the end of each month, they should prepare a summarizing account, which is to be stored [in an archive] available for auditing. [When] this ordinance is not followed, the vice-magistrate, magistrate, county scribes, supervisors of [the respective] offices and [other] heads of officials are to be fined each one suit of armor.

Accounts submitted by various county offices that used convict laborers were typically titled "Registers of [convict] laborers performing [their tasks]" (*zuo tu bu* 作徒簿, henceforth referred to as "registers of convict laborers"). The above-quoted ordinance stipulates that these accounts had to be prepared on the daily basis and submitted to the county court. A large number of such documents in the Qianling county archive confirms that this regulation was complied with. For example, the following register was submitted by the supervisor of county Arsenal (*ku* 庫) in 218 BCE:[98]

廿九年八月乙酉，庫守悍作徒薄（簿）：受司空城旦四人、丈城旦一人、舂五人、受倉隸臣一人· 凡十一人
城旦二人繕甲：□□☐
城旦一人治輸書：忌☐
城旦一人約車：登☐（第一欄）
丈城旦一人約車：缶
隸臣一人門：負解
舂三人級：姱、□、娃（第二欄）
廿廿年上之☐（第三欄）（正）
八月乙酉，庫守悍敢言之：疏書作徒薄（簿）牒北（背）上，敢言之。/逐手。
乙酉旦，隸臣負解行廷。（背）

Front side:
Twenty-ninth year [of King Zheng, i.e., the First Emperor], in the eighth month, on the day *yi-you* (September 11th, 218 B.C.). Han, the provisional [Supervisor] of the Arsenal [submits this] register of convict laborers performing [their tasks]. From the Controller

[98] *Liye Qin jiandu*, vol. 1, 203-204, tablet 8-686+8-973.

of Works, [we] received four wall-builders, one old wall-builder,[99] five grain-pounders. From the Granaries, [we] received one bondservant. •Altogether eleven persons.
Two wall-builders repair suits of armor…
One wall-builder overhauls the cart: Ji…
One wall-builder gears up the wagon: Deng.
One old wall-builder gears up the wagon: Fou.
One bondservant [guards] the gate: Fuju.
Three grain-pounders weave silk [yarn]: Kua, …, Wa[100]
Line 8: twentieth year submitted this…[101]

Back side:
Line 9: In the eighth month, on the day *yi-you*. Han, the provisional [Supervisor] of Arsenal, dares to report this: The register of convict laborers performing [their tasks], divided into sections,[102] is on the other side of this tablet. Dare to report this. Drafted by Zhu.
Line 10: On the day *yi-you*, at dawn, bondservant Fujie carried [this] to the [county] court.

This register records the tasks performed by a group of eleven convicts on one particular day. The Arsenal officials were in charge of providing food rations to the laborers, while their provisioning by their managing offices of Granaries and Controller of Works was temporarily suspended. Failure to accurately keep track on the operators of convicts on each particular day would have created an opportunity for misappropriation of rations, something that the Qin law

[99] For the reading of *zhang* 丈 as "old," see *Liye Qin jiandu*, vol. 1, 195, n. 5.

[100] While the summary of the labor force mentions five grain-pounders, only three of them are accounted for in the list of tasks. That might be due to the scribal mistake, or other two convicts might have been working elsewhere and accounted for in a separate document.

[101] This line is inscribed at the bottom of the front surface of the tablet in significantly larger graphs than the rest of the document, see Hunan sheng wenwu kaogu yanjiusuo, ed., *Liye Qin jian* 里耶秦簡 [*Qin documents from Liye*], vol. 1 (Beijing: Wenwu, 2012), 133, tablet 973. Chen Wei and his team believe that this line is not related to the register (*Liye Qin jiandu*, vol. 1, 204, n. 9). It may have been added by a scribe practicing his handwriting.

[102] The expression *shushu* 疏書 is known from the Shuihudi formulaic model and bears the meaning of 'recording in separate registers' (*Shuihudi*, 162, slips 91-92).

sought to prevent.[103] As the providers of the convict labor force, offices of Granaries and Controller of Works also had to submit accounts such as the following one:[104]

二人付□□□
一人付田官
一人付司空：枚
一人作務：臣
一人求白翰羽：章
一人廷守府：快（第一欄）
其廿六人付田官　☐
一人守園：壹孫　　☐
二人司寇守：囚、**嫭**☐
二人付庫：恬、擾☐
二人市工用：**餉**、亥☐
二人付尉：□、是　☐（第二欄）（正）
五月甲寅，倉是敢言之：寫上，敢言之☐（背）

Front side:
Two persons dispatched to…
One person dispatched to the Office of Fields.
One person dispatched to the [office of] Controller of Works: Mei.
One person [performing] artisanal tasks: Chen.
One person collecting feathers of white pheasant: Zhang.
One person guarding the county court office: Kuai.
Of which twenty-six persons dispatched to the Office of Fields.
One person guarding the orchard: Yisun.
Two persons overseeing [the work of other convicts?] as 'robber-guards': Qiu, Hu.
Two persons dispatched to the [office of] Arsenal: Tian, Rao.
Two persons employed as artisans at the market: Yu, Hai.
Two persons dispatched to the [office of County] Commandant: …, Shi.

Back side:
In the fifth month, on the day *jia-yin*, Shi, the [Supervisor of] Granaries, dares to report this: [as] recorded above. Dare to report this.

[103] The "Statute on granaries" (*cang lü* 倉律) from Shuihudi prescribes against the double issuance of food rations to the same person by different government agencies, see *Shuihudi*, 31, slip 46; Hulsewé, *Remnants*, 44-45. While this regulation applies to monthly rations, same principle almost certainly applied to those who received rations on a daily rather than monthly basis. For the practical application of this rule to a group of clerks and servicemen on an official mission, see *Liye Qin jiandu*, vol. 1, 1-7, tablet 5-1.

[104] *Liye Qin jiandu*, vol. 1, 196-197, tablet 8-663.

Tallied with the respective reports submitted by each of the recipient offices mentioned in the text, this document constituted a verifiable account of the use of the convict labor force and as such could be used to audit the expenditure of grain rations. The account provides a glimpse into the tasks performed by bondservant and bondwomen convicts managed by the Office of Granaries and the range of county agencies using convict labor. It also attests to the practice of manpower transfers between the Granaries and the Controller of Works, which had to do with some difference in tasks assigned to the bondservant/bondwomen and hard-labor convicts.

Daily accounts such as this one constituted the basis for the monthly accounts (*yue bu* 月簿). One of such well-preserved monthly "registers of convict laborers" submitted by the Office of Granaries accounts for 4,376 man-days in the 12th month of the 34th year of the First Emperor (213 BCE), suggesting that at least 145 light-labor convicts (bondservants and bondwomen) were stationed at Qianling that month.[105] The office of the Controller of Works submitted similar monthly accounts of the hard-labor convicts.[106] A monthly register submitted by Erchun District was also recovered from the Liye well.[107]

In cases when convicts were assigned to recipient offices for an unspecified period of time rather than on a particular day, additional coordination was required between the provider and recipient offices in order to make sure that the former was updated as soon as the works were

[105] *Liye Qin jian bowuguan cang Qin jian*, 56, tablet 10-1170. The numbers of convicts in Qianling will be discussed in the third section of this chapter.

[106] Such an account for the tenth month of the twenty-eighth year of the First Emperor (219 BCE) is mentioned in another Liye document, see *Liye Qin jiandu*, vol. 1, 323, tablet 8-1428.

[107] *Liye Qin jiandu*, vol. 1, 283, tablet 8-1143+8-1631.

completed. Communication between the Erchun District of Qianling County and the county Office of Controller of Works, dated 217 BCE, provides an example:[108]

> 卅年十月辛卯朔乙未，貳春鄉守綽敢告司空主：主令鬼薪軫、小城旦乾人為貳春鄉捕鳥及羽，羽皆已備，今已以甲午屬司空佐田，可定薄（簿）。敢告主。（正）
> 十月辛丑旦，隸臣良朱以來。/死半。邛手。（背）
>
> *Front side:*
> Thirtieth year [of King Zheng, i.e., the First Emperor], in the tenth month, the first day of the month being the day *xin-mao*, on the day *yi-wei* (November 20th, 218 BCE). Chao, the provisional [Head of] Erchun District dares to inform the senior [official] at the [office of the] Controller of Works: [You], the senior [official], have ordered the "gatherer of firewood for shrines" Zhen and the minor "wall-builder" Qianren[109] to catch birds and collect feathers for Erchun District. All [necessary] feathers are already stocked, and as of the day *jia-wu* (November 19th, 218 BCE) we already handed[110] [the convicts] to Tian, the assistant at the [office of the] Controller of Works. The register [of convict laborers] can now be drafted. Dare to inform the senior [official].
>
> *Back side:*
> In the tenth month, on the day *xin-chou* (November 26th, 218 B.C.), delivered by the bondservant Liangzhu. / [Seal] opened by Si. Drafted by Qiong.

[108] *Liye Qin jiandu*, vol. 1, 343, tablet 8-1515.

[109] In the Qin and Han census system, 'small' (*xiao* 小) was an age bracket comprising individuals under the age of 15, see Zhang Rongqiang 張榮強, *Han Tang jizhang zhidu yanjiu* 漢唐籍帳制度研究 [*A study of the registration and accounting regime from Han to the Tang periods*] (Beijing: Shangwu yinshuguan, 2010), 37-66. Age brackets were set up to determine one's fiscal responsibilities, including the payment of poll tax and performance of labor services. Apart from the age, marital status counted as an additional criterion to define one's age group. Married individuals were considered 'grown-up' (*da* 大) regardless of their actual age. See Ling Wenchao 凌文超, "Qin Han Wei Jin "ding zhong zhi" zhi yansheng" 秦漢魏晉"丁中制"之衍生 [The emergence of the regime of the fiscal age groups during the Qin-Han and Wei-Jin periods], *Lishi yanjiu* 2 (2010): 25-45, esp. 42-43.

[110] In the Liye documents, the word *shu* 屬 assumes the meanings "to transfer (physically), to hand over" (as in *Liye Qin jiandu*, vol. 1, 101-102, tablet 8-167+8-194+8-472+8-1011 and 359-361, tablet 8-1562 that refer, respectively, to the transfer of a boat and birds and accompanying documents) and "to pass, to delegate" (as in *Liye Qin jiandu*, vol. 1, 78-80, tablet 8-138+8-174+8-522+8-523 that refers to the reassignment of responsibilities among county scribes). Insofar as the present document is by itself a notification to the effect that the Controller of Works assumes responsibility for provisioning its convicts, there seems to be no need for issuing such notification on two separate occasions, once to the assistant (*zuo* 佐) and once to the head of the office. Instead, I assume that *shu* refers to the actual transfer of the two convicts to the responsible official who arrived in Erchun to convey them back to the office of the Controller of Works.

This document was drafted in Erchun District to inform the Office of the Controller of Works that the two previously dispatched convicts had completed their task and were returned to the Controller of Works on the same day. Report was necessitated by the fact that the two convicts were working for unspecified period of time that had to be confirmed on the completion of work. After that the Office of the Controller of Works reassumed responsibility for issuing rations to these convicts. During the period of their work at Erchun, the district authorities were in charge of rations that were recorded in special receipts submitted to the county court:[111]

> 粟米三石七斗少半斗。卅二年八月乙巳朔壬戌，貳春鄉守福、佐敢、稟人杕出以稟隸臣周十月、六月廿六日食。令史兼視平。敢手。
>
> 3 *shi* 7 and 1/3 *dou* (74 2/3 liters) of husked grain. Thirty-second year [of King Zheng, i.e., the First Emperor], in the eighth month, the first day of the month being the day *yi-si*, on the day *ren-xu* (October 2nd, 215 BCE). Fu, the provisional [Head of] Erchun District, assistant Gan, and grain-disburser Di, issued [this grain] ration to bondservant Zhou for twenty-six days in the tenth and sixth months.
> Overseen by the county scribe Jian. Drafted by Gan.

Communication between the provider and recipient offices was carried out through the county court. This explains why the above-quoted correspondence between Erchun District and the Controller of Works (tablet 8-1515) was stored the Qianling county archive.[112] On receiving

[111] *Liye Qin jiandu*, vol. 1, 451, tablet 8-2247. Qianling county archive contains a number of such ration receipts issued by the authorities of Erchun and Qiling districts to the convicts temporarily working within their jurisdictions, see *Liye Qin jiandu*, vol. 1, 312, tablet 8-1335; 358, tablet 8-1557; 364, tablet 8-1576 (Erchun District); 249-250, tablet 8-925+8-2195; 398, tablet 8-1839 (Qiling District). Receipts on some other partly preserved tablets very likely also belong to this category of documents, see *Liye Qin jiandu*, vol. 1, 298, tablet 8-1241; 366, tablet 8-1595.

[112] This conforms to the recent reconstruction of document circulation at the county level, according to which all correspondence between the county offices and sub-county administrative units (districts) had to pass through the county court rather than being processed directly between the offices. See Tsuchiguchi, "Riye Shin kan ni miru Shin dai kenshita no kansei kōzō," 22-28.

an application for a certain number of convicts or a report on the completion of their work, county authorities forwarded a copy to the addressee. From the perspective of the county court, such a procedure facilitated the task of keeping track on the transactions between offices and districts within the county.[113]

Apart from the offices of Granaries and Controller of Works, other specialized agencies managed particular groups of unfree laborers. In an admonition to the Qianling officials for their failure to open up new agricultural lands, the governor of Dongting Commandery mentioned the Imperial Secretary for Managing War Captives (*zhilu yushi* 治虜御史), an otherwise unknown office that apparently belonged to the central government and was supervising war captives (*lu* 虜), a group of unfree laborers also mentioned in the Yuelu Academy "Statutes on the establishment of officials." The admonition suggests that counties could be provided with an additional labor force in the absence of a sufficient number of locally available convicts: "When convicts are too few or when there are no convicts, forward the register to the Imperial Secretary for Managing War Captives, and he [will] provide you [with the required labor force]" 徒少及毋徒，薄（簿）移治虜御史，御史以均予.[114]

The amount of bureaucratic "paperwork" involved in the transfer of convict manpower between the government offices in Qianling County is illustrative of transaction costs in the operation of unfree labor system. Typical was the situation recorded in the document on tablet 8-

[113] For a reconstruction of the circulation and storage of correspondence between the offices and districts of Qianling County on the basis of handwriting analysis, see Korolkov, "Criteria for Discerning Individual Writing Habits of the Liye Scribes: Originals and Copies of the Official Documents and the Bureaucratic Politics in the Qin Empire," in Olivier Venture and Enno Giele, eds. *Proceedings of the IWH Symposium/International EASCM-Conference 2014 «Orthopraxy, Orthography, Orthodoxy: Emic and Etic Standards and Classifications of Chinese Manuscripts»* (forthcoming).

[114] *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759.

1515 when a trivial work completed by two convicts required more than a week of written exchange between three different offices. Relocations between the residence and labor sites presented opportunities for absconding, as the would-be founder of the Han Empire, Liu Bang 劉邦 (256–195 BCE) discovered while escorting a gang of convicts to the construction site of the First Emperor's mausoleum. Many of his subordinates escaped on the way.[115] Labor operators could also have been unaware about the potential sources of much-needed manpower – where exactly did they need to apply in order to get some working hands? This may have been the case with the Qianling officials in charge of opening up agricultural fields in their county. Conflicts between the providers and users of labor are not unheard-of in unfree labor systems.[116]

2.3. Convict society

Earlier in this chapter, the three major groups of the Qin and Han convict population were characterized as hard-labor convicts; bondservant/bondwomen convicts; and an interstitial group that shared characteristics of convict and commoner statuses. These definitions only partly capture socio-economic distinctions among various groups. Labor tasks assigned to the so-called "wall-builder" and bondservant convicts, for example, overlapped so regularly as to make scholars search for alternative criteria to analyze differences between the two.[117] In this subsection, I summarize the key features of each of the convict statuses and focus on their economic aspects.

[115] *Shiji*, 8-347; *Hanshu*, 1A.7.

[116] Gregory, "An Introduction to the Economics of the Gulag," 15.

[117] Miyake, "Laoyixing tixi," 99; Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, 197-198.

Hard-labor convicts

The two legal statuses classified as hard-labor convicts, the "wall-builders and grain-pounders" (*chengdan chong*) and the "gatherers of firewood for shrines and white-rice sorters" (*guixin baican*), are considered together since the latter was a variety of the former. Labor punishment associated with the status of *guixin baican* was imposed on the criminals of privileged status such as the holders of higher social ranks or members of the ruling house.[118] Often accompanied by mutilating punishments such as tattooing (*qing* 黥) or severing of the foot (*zhan zhi* 斬趾), the hard labor sentence was the harshest punishment after the capital penalty.[119] Families of men sentenced to hard labor punishments were impounded (*shou* 收) by the government along with their farms, residences, and all movable property.[120] Stripped of all possessions and with no support available from their families, these people were almost entirely

[118] *Liye Qin jiandu*, vol. 2, 164, 8-775+8-805+8-884+9-615+9-2302; *Ernian lüling yu Zouyanshu*, 123-124, slip 82; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 498-499.

[119] In the early Western Han legal regulations, relatively few crimes warranted severing foot before being made hard labor convict, while tattooing was applied much more often, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, lxxiii-lxxvii. This is understandable considering that someone lacking his or her feet was barely able to perform most of the hard labor tasks. However, the Qin statute from the Yuelu Academy collection suggests that severing of feet was applied frequently enough for special 'artificial limbs' to be devised in order to render such mutilated convicts minimally functional. See *Yuelu shuyuan cang Qin jian*, vol. 4, 145-146, slips 232-236.

[120] The basic legal rule for impoundment of property and families of those sentenced to be made 'wall-builders' and 'gatherers of fuel for spirits' is formulated in the opening article of the early Western Han "Statute on impoundment" from Zhangjiashan, see *Ernian lüling yu Zouyanshu*, 159-160, slips 174-175; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 600-601. This regulation clearly did not apply to female culprits whose family members presumably retained their commoner status. "Models for sealing and investigating" (*feng zhen shi* 封診式) from the Qin tomb at Shuihudi outline the procedure for listing, sealing, and guarding property and family members of a criminal in expectation for the sentence to be passed, see *Shuihudi*, 149, slips 8-12; Hulsewé, *Remnants*, 184-185.

dependent on the government for their subsistence.[121] While the female convicts were allowed to have children, these were from their birth reduced to the convict status.[122]

The major costs involved in the employment of hard-labor convicts were associated with supplying them with food and clothes. The Shuihudi and Yuelu Academy legal statutes regulate the issuing of clothes to convicts. Clothes had to be of a distinguishable red color, with the Yuelu Academy "Statute on the Controller of Works" (*sikong lü* 司空律) additionally emphasizing that both face side and underside had to be dyed, presumably in order to prevent runaways from concealing their status by turning their clothes inside out.[123] Convicts were punishment for any attempt to remove or change this distinctive clothing.[124]

The size of food rations depended on age, gender, and the nature of labor tasks. The Qin statute from Shuihudi set up monthly rations of 1.5 *shi* (30 liters) of unhusked grain (*he* 禾) for females and underage males, one *shi* two-and-a-half *dou* (25 liters) for underage females, and one *shi* (20 liters) for the minors yet unable to work.[125] No such monthly rations are recorded for the male hard-labor convicts who were fed on the per day basis (*ri shi* 日食). Their rations depended on the type of work they were assigned. The Shuihudi statute singles out construction work as a

[121] The Qianling county documents suggest hard-labor convicts could possess very small amounts of money they used to purchase leftovers after official sacrifices. These amounts were much smaller than those mentioned for another convict group, the bondservants and bondwomen, see below.

[122] See, for example, *Shuihudi*, 32-33, slips 49-52; Hulsewé, *Remnants*, 31. "Small wall-builders" (*xiao chengdan* 小城旦) could perform certain labor tasks such as collecting feathers and catching birds. The Qianling county archive contains numerous records of their employment by the local government, see *Liye Qin jiandu*, vol. 1, 343, tablet 8-1515; 362, tablet 8-1566; vol. 2, 455-463, tablet 9-2289. See also Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 89.

[123] *Shuihudi*, 53, slip 146; Hulsewé, *Remnants*, 72; *Yuelu shuyuan cang Qin jian*, vol. 4, 123, slips 167-168 (1375, 1412).

[124] *Yuelu shuyuan cang Qin jian*, vol. 5, 141-142, slips 220-223.

[125] *Shuihudi*, 32-33, slips 49-52; Hulsewé, *Remnants*, 31.

particularly onerous type of labor, for which hard-labor male convicts were issued $^{5}/_{6}$ *dou* ($1^{2}/_{3}$ liters) of grain every day. Daily rations for other types of work amounted to $^{2}/_{3}$ *dou* ($1^{1}/_{3}$ liters). The statute additionally stipulated that the size of rations issued to the convicts who were ill and unable to work was to be decided by the managing officials depending on the circumstances (其病者，稱議食之令吏主).[126]

Receipts from the Qianling county archive suggest that the size of the rations actually issued usually matched these legal norms. Three such records attest that the groups of female and minor convicts received $4^{1}/_{6}$ *sheng* (0.83 liters) of husked grain (probably millet, *sumi* 粟米) per person per day, which corresponded to 1.25 *shi* (25 liters) per month.[127] While the legally prescribed monthly ration for working female and minor convicts was 1.5 *shi* (30 liters), this was measured in unhusked grain, while the rations recorded in the Liye records were issued in grain that had already undergone husking and accordingly was reduced in volume. The size of rations could slightly vary when convicts were dispatched to work for other agencies and administrative units. A receipt from 216 BCE records 8 *sheng* (1.6 liters) of husked grain received by two female convicts temporarily stationed in Erchun District.[128] This amount most likely represents two daily rations of 4 *sheng* (0.8 liters) each, slightly less than those recorded in the three previously mentioned receipts. Contrary to the letter of the statute, increased food rations were issued per number of days convicts spent working, rather than for the whole month, and were reduced to the baseline level on completion of labor tasks.

[126] *Shuihudi*, 33-34, slips 55-56; Hulsewé, *Remnants*, 32-33.

[127] *Liye Qin jiandu*, vol. 1, 115, tablet 8-212+8-426+8-1632; 116, tablet 8-216+8-351; 404, tablet 8-1894.

[128] *Liye Qin jiandu*, vol. 1, 364, tablet 8-1576.

The latter observation is in line with the observation that local officials manipulated the size of grain rations in order to reduce provisioning expenses.[129] The male "wall-builders", who probably represented the majority of hard-labor convicts, were the group most exposed to such manipulations. In the lack of any fixed baseline monthly ration, their provisioning depended on the type of tasks they were assigned on each particular day, and was left at their superiors' discretion on the days when they were unable to work due to illness or when they had no work assignments. Ration cuts were accumulated as "surpluses" (*yu* 餘) that could be saved for the latter period.[130] Insofar as responsible officials were penalized for issuing rations larger than those warranted by the nature of works performed by these convicts, there was a strong incentive to reduce their provisioning to and below the minimal subsistence level, rendering the hard-labor male convicts the most vulnerable group among the convict population.[131]

Bondservants and bondwomen

In spite of being often lumped together with the hard-labor convicts under the category of *tuli* 徒隸 in the official documents,[132] the bondservants (*lichen* 隸臣) and bondwomen (*liqie* 隸妾) were markedly distinct in terms of their legal, social, and economic standing. The ambivalence of their status that was characterized, on the one hand, by the extreme forms of limitation of personal freedom, and, on the other, by a high degree of economic autonomy and agency, led to a prolonged

[129] Kim, "Food Distribution during China's Qin and Han Periods," 50-59.

[130] *Shuihudi*, 34, slips 57-58; Hulsewé, *Remnants*, 33-34.

[131] For the respective legal regulations, see *Shuihudi*, 34, slips 57-58; Hulsewé, *Remnants*, 33-34. For the observation that officials were inclined to reduce convicts' food rations, see Kim, "Food Distribution during China's Qin and Han Periods," 56.

[132] Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 76.

discussion on whether or not they should be properly described as state slaves, and if so, how such slavery fits into the system of penal labor in which, as the unearthed Qin and Han statutes made sufficiently clear, *lichen qie* occupied a more privileged place than the hard-labor convicts.[133]

The problem is further complicated by the promiscuous origins of this group of state-dependent laborers. While many of them were clearly convicts, a brief article from the Shuihudi collection of Qin legal statutes seems to suggest that, during the Warring States period, some prisoners of war were also made bondservants.[134] Other Qin documents do not further address the fate of such bondservants as if they were not differentiated from the general mass of convict laborers.

Transmitted and excavated records strongly convey the Qin state's claim to the role of the sole distributor of labor resources in the economy.[135] Extant accounts of Shang Yang's reforms suggest that dependent laborers along with agricultural land were allocated according to the level of social rank (*jue*). However, the narratives differ with regard to the legal status of these

[133] Some scholars described all groups of convict laborers as "official slaves" (*guan nubi* 官奴婢), making exception only for the *sikou* and *hou* who were obviously different from the rest of convicts and approximated general commoner populace in terms of almost all aspects of their legal status and quotidian life. See, for example, Lim Byeong-Deog, "Qin Han de guan nubi he Han Wen-di xingzhi gaige," 90-103. Others restricted their application of the term "slave" to *lichenqie* alone, while still others insisted that the word is altogether misleading and should not be used in the analysis of the unfree labor regime in the Qin and Han states. For the former view, see, for example, Gao Min, *Yunmeng Qin jian chutan*, 91-108; for the latter, see Zhang Jinguang, *Qin zhi yanjiu*, 520-552. In his nuanced analysis of the use of the term *lichen qie* in the Qin and Han legal texts, Li Li concludes that the majority of cases refer to convict laborers, while the significant minority (17%) seems to refer to government-owned slaves. He also observed that in the Liye documents that were published at the time of his study (2007), the term *lichenqie* refered to convicts rather than slaves. See Li Li, *"Lichenqie" shenfen zai yanjiu*, 681-682. Sun Wenbo, on his part, avoids the problem by observing that the term *tuli* includes the conventional references to both convict laborers (*tu* 徒) and slaves (*li* 隸) and could therefore indicate either or both of these groups depending on the use context, see Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 81. Other scholars also prefer drawing distinction between the convicts *stricto sensu* and private slaves who could be purchased by the government and incorporated into the *tuli* force, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, 196.

[134] *Shuihudi*, 89, slip 38; Hulsewé, *Remnants*, 117-118.

[135] Cf. Walter Scheidel's conclusion that in early imperial China the state played key role in maintaining and operating the system of forced labor. See Scheidel, "Slavery and Forced Labor," 133-150.

dependents. While the "Within the Borders" (*Jing nei* 境內) chapter of the *Book of Lord Shang*, tentatively dated 350–300 BCE, prescribes the appointment of one "retainer" (*shuzi* 庶子) and the grant of one *qing* (ca. 4.6 hectares) of arable and nine *mu* (ca. 0.4 hectares) of residential land for each additional level of rank,[136] the *Shiji* biography of Shang Yang specifies that these retainers were bond-persons (*chenqie* 臣妾).[137] The latter term is reminiscent of, though not identical to that of bondservant and bondswomen convicts in the excavated documents.

This simultaneous allocation of land and dependent laborers was likely informed by the idea of "matching people to land," which was fundamental for the mid-fourth century BCE Qin reforms.[138] One's entitlement to land was the function of his social rank, as exemplified by the early Western Han statutes (that derived from if not exactly coincided with the Qin legal norms) that prescribed redistribution of land at the event of inheritance. An heir to a deceased rank-holder inherited his rank at a reduced level. Accordingly, he was only entitled to a part of the original land plot. The remainder passed to the government for further redistribution.[139] If rank-based landholding was indeed associated with an entitlement to dependent labor, it may be assumed that the same principle applied to the number of dependent workers employed by rank-holders, even

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[136] *Shangjun shu zhuizhi*, 5.119; for the tentative composition date of the chapter, see Pines, *The Book of Lord Shang*, 52-53.

[137] *Shiji*, 68.2230.

[138] "Matching people to land" is one of the key themes of the *Book of Lord Shang*, epitomized by the dictum in one of the collection's earliest chapters, "Calculating the Land" (*Suan di* 算地): "When the people exceed the land, devote yourself to opening up [new lands]; when the land exceeds the people, engage in attracting [immigrants]" (*Shangjun shu zhuizhi*, 2.42; translations follows Pines, *The Book of Lord Shang*, 158, for the early date of the chapter see op. cit., 52-53). Each of these strategies, in turn, became the subject of another two essays in the *Book*, "Orders to Cultivate Wastelands" (*Ken ling* 墾令, chapter 2) and "Attracting the People" (*Lai min* 徠民, chapter 15).

[139] The rules of inheritance of ranks and rank-associated landholdings are conveyed in three statutes, "On households" (*hu lü* 戶律), "On enrollment" (*fu lü* 傅律), and "On establishment of heirs" (*zhi hou lü* 置後律). See *Ernian lüling yu Zouyanshu*, 216-218, slips 312-313; 233, slips 359-361; 235-236, slips 367-368; 240, slip 386; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 790-791, 838-839, 854-855, 862-863.

though it is unclear whether distinction was drawn between the laborers allocated by the state and those privately owned.

It has already been pointed out that even after having been sold to private individuals, bondservants and bondwomen remained within the government's purview as the latter maintained the right to buy them back from their owners, apparently regardless their willingness to sell.[140] Below, I will argue that the seemingly ambiguous status of bondservant and bondwomen convicts in the Qin and early Western Han law should be analyzed not under the assumption of a dichotomy between state and private forms of personal dependence but as part of this group's specific place within the state economy and social engineering scheme.

As discussed previously, bondservant/bondwomen convicts were employed either on the permanent (*rong* 冗) or rotational (*geng* 更) principle. In the latter case, they worked for the government part-time and received rations only during the periods when they were working.[141] This implies they had means to support themselves for the rest of time. An article of the Qin "Statute on the Controller of Works" points in the same direction when it stipulates that the bondservants temporarily detained among the hard-labor convicts are to be charged for their clothing in case their wives are bondwomen employed on rotational basis or free commoner women.[142] Along the same lines, the "Statute on Currency" (*jinbu lü* 金布律) stated that clothes

[140] For the Qin legal case that manifests the ability of the state to buy back bondservants and bondwomen sold to private individuals, see *Ernian lüling yu Zouyanshu*, 360, slips 121-123; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1318-1319.

[141] This is explicitly stated in the Qin statute "On granaries" excavated from the Shuihudi tomb, see *Shuihudi*, 32, slip 49; Hulsewé, *Remnants*, 31. This practice contrasted with that for hard-labor convicts who were issued food rations, even though at a reduced rate, also during the periods of idleness.

[142] *Shuihudi*, 52, slips 141-142; Hulsewé, *Remnants*, 66.

should be issued only to unmarried bondservants working for the government.[143] Both cases imply that married bondservants were expected to receive clothes from their households. Even in case their wives were also convicts, they were still supposed to have time and resources to provide husbands with clothes as long as they were employed part-time rather than permanently.

The ability of these convicts to provision themselves during the periods of unemployment implies a degree of economic autonomy that hard-labor convicts did not enjoy. In contrast to the latter, bondservant and bondwomen convicts did not fall under the impoundment laws, so their households were not dissolved. Moreover, as suggested by the Shuihudi statute, bondservants' wives retained their commoner status provided they were not implicated in their husbands' misdeeds (otherwise they were impounded and probably became bondwomen, as discussed above). However, their households were excluded from the land distribution scheme and prohibited to reside in villages and wards (*li* 里) along with general populace.[144]

These legal rules reflect the expectation that bondservant/bondwomen convicts were able to provision themselves when not employed by the government while having been deprived of the

[143] *Shuihudi*, 42, slip 94; Hulsewé, *Remnants*, 56.

[144] In the absence of the official Qin legal regulations concerning land allotment discovered and published so far, the earliest outline of land distribution scheme in the early Chinese empires is transmitted in the early Western Han "Statutes on households" from Zhangjiashan, dated around 186 BCE, which is generally believed to be directly borrowed from the Qin statutes. These regulations generally conform to the descriptions of rank-based land allotments in traditional narratives such as the *Book of Lord Shang* and Shang Yang's biography in the *Shiji*. The Zhangjiashan statutes specify the size of agricultural and residential land plots assigned to the holders of social ranks, non-ranked commoners, and convicts of *sikou* ("robber-guard") status as well as amnestied criminals who underwent mutilating punishments and therefore could not be fully restored their commoner status (*yinguan* 隱官, "those concealed within the government offices"), see *Ernian lüling yu Zouyanshu*, 216-218, slips 310-313; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 790-791. *Lichen* convicts are not included in the list, suggesting they were not entitled to land lots assigned by the state. The same statute prohibits all convicts with the exception of "robber-guards" to reside within villages and wards of "ordinary people" (*min* 民), see *Ernian lüling yu Zouyanshu*, 216, slip 307; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 788-789.

principal productive asset, agricultural land.[145] Excavated Qin documents, indeed, suggest that bondservants engaged in non-agricultural activities such as craftsmanship and commerce, and hired themselves out to private employers. An article of the Qin "Statutes on abscondence" from the Yuelu Academy collection outlines some ways bondservants and bondwomen were making their living:[146]

> 隸臣妾及諸當作縣道官者僕、庸，為它作務，其錢財當入縣道官而逋未入去亡者，有（又）坐逋錢財臧，與盜同灋。
>
> Bondservants and bondwomen as well as those who match working for the county or march offices,[147] when they work as servants or hired laborers, or when they engage in craft production for others (i.e., not for the government offices),[148] money that they have earned should be paid to the county or march offices. Those of them who evade payment and abscond will additionally be liable for evading [service] by concealing [illicit] monetary [profit],[149] and [are to be sentenced] according to the principle applied to the robbers.[150]

This article deals with the situation when convicts were supposed to be working for the government but instead employed themselves elsewhere. The word *yong* 庸 ("wageworker, hired

[145] Peculiarity of the economic conditions of *lichen qie* convicts was noticed in a number of recent studies of convict society in the Qin and Han empires. See, for example, Miyake, "Laoyixing tixi," 121-124; Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 83; Gao Zhenhuan, *Qin Han xingtu zhidu de fazhan*, Chapter 2.

[146] *Yuelu shuyuan cang Qin jian*, vol. 4, 61, slips 68-69.

[147] In the Qin and Han empires, "march" (*dao* 道) was an official designation of a county with prevailing non-*huaxia* population, see *Hanshu*, 19A.742. Accordingly, 'counties and marches' (*xian dao* 縣道) served as a general reference to the county-level administrative units.

[148] For the reading of *zuowu* 作務 as 'artisanal production', see *Shuihudi*, 42-43, slip 97; Hulsewé, *Remnants*, 56-57.

[149] That is, in addition to the crime of absconding (*wang*).

[150] The final clause of this article is referring to one of the general principles of the Qin and Han penal law, according to which crimes against property were punished according to the value of 'illicit gains' (*zang* 贓). See *Ernian lüling yu Zouyanshu*, 112, slips 55-56; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 462-463. For the application of this principle in Qin legal practice, see, for example, *Shuihudi*, 101-103, slips 33-42; Hulsewé, *Remnants*, 129-132.

hands") suggests private employment, while the phrase *wei ta zuowu* 為它作務 indicates that convicts were working for someone other than "the county or march offices." In such situation, their earnings were to be handed to the government lest these convicts be considered "evading" (*bu* 逋) their labor duties. In Qin statutory law, the term *bu* was associated with general labor services (*yao*) and had the meaning "to abscond and not to come to the assembly after the officials and the Village Chief have already ordered statutory labor."[151] The use of the term *bu* in the present legal article suggests bondservants and bondwomen were called to work for a fixed period of time and were not permanently employed by the government. Their earnings for this period could substitute for labor on behalf of the government.[152]

This legal norm has a number of important ramifications for understanding economic conditions of the bondservant and bondwomen convicts in the Qin Empire. They were allowed to earn money by hiring themselves out as wageworkers. Moreover, these decisions were not necessarily made by the convicts themselves. A recently published imperial Qin ordinance conveys an instruction against hiring out bondwomen and females working off their fines and redemption fees. The ordinance clearly addresses local officials, who were threatened with dismissal for violation of this norm. Their superiors, including county magistrate, vice-magistrate, and heads of offices, were heavily fined for the failure to detain the offenders.[153] Not only does this regulation suggest that the violation it deals with was commonplace, it also indicates that it was a legal practice for the local officials to hire out male convicts under their supervision.

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[151] *Shuihudi*, 132, slip 164; Hulsewé, *Remnants*, 167.

[152] My reading of this legal article is congruent with that recently offered by Gao Zhenhuan, see Gao Zhenhuan, *Qin Han xingtu zhidu de fazhan*, Chapter 2, Section 3.

[153] *Yuelu shuyuan cang Qin jian*, vol. 5, 182, slips 255-256.

A Qin legal case record from the Yuelu Academy collection provides another example of a bondservant employed to work in a private household (*nei wei ren yong* 內為人庸). The context suggests this convict's employment may not have been legal since he was already assigned work as an official's servant (*wei li pu* 為吏僕).[154] According to the Qin statutes, appointments as servants (*pu* 僕) and cooks (*yang* 養) to the officials were specifically reserved for bondservants.[155] An ordinance from the Yuelu Academy additionally outlines the conditions of these servants and cooks:[156]

> 丞相議：吏歸治病及有它物故，免，不復之官者，令其吏舍人、僕庸行□
>
> The Chancellor put forward the following opinion in a court deliberation[157]: "[When] officials return home to cure illness and when they die [for any] other [reason], or are dismissed from office, [so that they] are not restored to their offices, order the retainers and servants of [these] officials to hire themselves out…

The text highlights the discontinuous nature of servants' employment, suggesting they were probably performing their duties on a rotational basis. When not called to government service,

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[154] *Yuelu shuyuan cang Qin jian*, vol. 3, 179, slip 144; translated in Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 222-223.

[155] *Yuelu shuyuan cang Qin jian*, vol. 4, 122, slip 165. Another statute forbids the appointment of other convicts as well as debtor laborers as servants and cooks, see *Yuelu shuyuan cang Qin jian*, vol. 4, 158, slips 271-273. That these prescriptions were complied with is suggested by the Liye document that records that all servants and cooks to the officials of the Qianling County were subject to the office of Granaries (吏僕養者皆屬倉), which, as has already been discussed, was in charge of managing bondservant and bondwomen convicts, see *Liye Qin jiandu*, vol. 1, 68-69, tablet 8-130+8-190+8-193.

[156] *Yuelu shuyuan cang Qin jian*, vol. 4, 200, slip 318.

[157] On the emperor's approval, an opinion voiced by one or more of the senior central government officials during the court deliberations (*yi* 議) could be formalized as an ordinance (*ling* 令), as exemplified by the collection of early Western Han "Ordinances on fords and passes" (*jinguan ling* 津官令) and examples from the official histories. See *Ernian lüling yu Zouyanshu*, 316-319, slips 506-511; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1134-1137; *Hanshu*, 5.140-141.

they were free to hire themselves out as private individuals. As suggested by the previously cited evidence, some managed to do so even during the periods of formal employment by the government. The latter's readiness to accept monetary payments in substitution of labor suggests bondservants' private employment more often than not yielded higher profits than the government could reasonably hope to achieve by directly commanding their labor. It also indicates lawgiver's awareness of the acute shortage of cash experienced by their local governments (see Chapter 2), and sought to ameliorate it by effectively taxing bondservants' earnings. That these convicts were often trained and used as artisans probably added them value on the private labor market.[158]

Some newly available evidence also suggests that bondservant convicts engaged in the market trade. One legal case from the Yuelu Academy collection involves a bondservant applying for a vacant market stall that he later illegally shared with another two traders.[159] It was apparently considered normal for a bondservant to conduct market trade in his own name. While his application was clearly a private one, the reason why the accomplices invited him to join in the fraud scheme had to do with the fact that this bondservant served as an "unfree scribe" (*chen shi* 臣史) at the county Bureau of Market (*shi cao* 市曹).[160] Bondservant employment as

[158] For the employment of bondwomen as artisans (*gong* 工), see *Shuihudi*, 45-46, slip 109; Hulsewé, *Remnants*, 61. Some categories of convict artisans, such as the women engaged in embroidery work and clothes-making, were valued so much that they were not allowed to be redeemed by other individuals, see *Shuihudi*, 35, slips 61-62; Hulsewé, *Remnants*, 45-46. For a more detailed analysis of the labor tasks performed by various groups of convicts, see section 3 in this chapter.

[159] *Yuelu shuyuan cang Qin jian*, vol. 3, 129-140, slips 62-87; translated in Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 145-166.

[160] The expression *chen shi* is otherwise unknown. The editors of the Yuelu Academy texts suppose it indicated a bondservant assigned to work at the Bureau of market, and Ulrich Lau and Thies Staack follow this reasonable interpretation in their translation. See *Yuelu shuyuan cang Qin jian*, vol. 3, 138, n. 7; Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 152, n. 749.

administrative assistants was a normal practice in the understaffed local governments of the Qin Empire.[161] This potentially rendered them sought-after companions in commercial enterprises.

Commercial activity was facilitated by bondservants' capacity to engage in contractual relationships, illustrated by a document from the Qianling county archive:[162]

> 令佐華自言：故為尉史養大隸臣豎，負華補錢五百，有約券。豎捕戍卒□□事贖耐罪賜，購千百五十二，華謁出五百以自償。
> 卅五年六月戊午朔戊寅，遷陵守丞銜告少內問：如辪（辭），次豎購當初畀華，及告豎令智之。/華手。（正）
> 華手☐（背）
>
> *Front side*
> Hua, an assistant to the [county] magistrate, reported [the following]: Xian, an adult bondservant who previously worked as a cook for the scribes of the [county] Commandant, borrowed five hundred cash from me, Hua, for which there is an agreement. Xian [later] arrested a frontier serviceman… who was guilty of a crime [warranting] a payment to redeem shaving, and [was entitled to a] reward. He was awarded 1,152 [cash], and now I require that he repays me five hundred [of these].
>
> Thirty-fifth year [of King Zheng, i.e., the First Emperor], in the sixth month, the first day of the month being the day *wu-wu*, on the day *wu-yin* (August 3, 212 BCE), Xian, the provisional [magistrate] assistant, instructs [county] Treasurer Wen[163]: [Everything] accords to the statement. [Part] of Xian's reward should be repaid to Hua, and Xian should be informed so that he is aware of this. / Drafted by Hua.
>
> *Back side*
> Drafted by Hua…

[161] For a discussion of the relevant evidence from the Qianling county archive, see Korolkov, "Convict Labor in the Qin Empire," 132-156.

[162] *Liye Qin jiandu*, vol. 1, 261, tablet 8-1008+8-1461+8-1532.

[163] County Treasurer (*shaonei* 少內) was in charge for issuing rewards and making other monetary payments on behalf of the county government. See, for example, *Liye Qin jiandu*, vol. 1, 144, tablet 8-409; 231, tablet 8-811+8-1572 (reward for arresting a criminal); 242-243, tablet 8-890+8-1583 (reimbursement of erroneously collected fines); 292, tablet 8-1214 (payment of a salary); vol. 2, 285, tablet 9-1279.

Not only were bondservants able to participate in legally binding agreements, they were also considered creditworthy to be lent a substantial amount of money. At least some bondservant convicts seem to have had opportunities to earn substantial amounts in cash.

While some bondservants were making a living by engaging in non-agricultural occupations, their exclusion from the state-sponsored land distribution scheme did not mean they could not till the land. In fact, the *Shiji* account of land allotments accompanied by allocation of dependent laborers suggests the opposite. Rank-holder agricultural land plots of the size specified in the early Western Han "Statute on households" could not be worked by one household, regardless how extensive these households may have been. Allotment for the holders of the 19th rank *guanneihou* 關內侯 ("Lord within the Passes") amounted to staggering 437 hectares, while the five lowest ranks were respectively entitled to 6.9, 9.2, 13.8, 18.4, and 23 hectares.[164] While these numbers represented maximum entitlements rather than actual distributions,[165] the same statute makes clear that the large land plots were not supposed to be worked by the rank-holder household alone by explicitly stipulating tax exemption for the portion of land actually tilled by household members.[166]

Excavated legal statutes do not provide an answer to the question of the origins of agricultural labor needed to work large land plots distributed under the Qin and Han regime of land allotments. What the *Shiji* account reveals is that Qin reformers were trying to coordinate land and labor allocations. It may be speculated that bondservant households, or an entitlement to

[164] *Ernian lüling yu Zouyanshu*, 216-218, slips 310-313; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 790-791.

[165] The latter were carried out by local governments depending on the availability of land, see *Ernian lüling yu Zouyanshu*, 219, slip 318; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 794-795.

[166] *Ernian lüling yu Zouyanshu*, 218, slip 317; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 792-793.

purchase bondservants from the government, were granted to rank-holders along with land allotments. Further excavated textual evidence may allow testing this supposition.

Degraded legal status combined with considerable degree of economic agency defined the specific place of bondservant and bondwomen convicts in the unfree labor system of the late Warring States and early Chinese empires. Their engagement in artisanship and market activities, especially as wageworkers, was instrumental in reducing the maintenance costs of unfree labor force for the government without forfeiting the state's right to call for its services and to relocate it from place to place when necessary. Even the sale to private owners did not permanently withdraw these convicts from the state's purview. Such conditional transfer of usage rights, rather than full-fledged private ownership, is congruent with other state-managed resource distribution schemes practiced by the Qin and early Han rulers, notably, that for agricultural land. Bondservant convicts and other unfree individuals amalgamated into this group may have been part of land distribution scheme.[167]

That the bondservant convicts enjoyed considerable degree of economic autonomy in the face of the state, they remained, in essence, convict laborers that could be called for compulsory service often associated with considerable hardship and life risk. A document from the Qianling archive dated from 219 BCE records the death of 28 out 151 bondservant convicts, suggesting an extraordinarily high attrition rate of 18.5%. We do not know what caused such a massive loss, but it was clearly considered an extraordinary event as almost the entire county leadership, including the magistrate, vice-magistrate and temporary vice-magistrate, several scribes, and the heads of

[167] The possible connection between state-sponsored distribution of lands and assignment of unfree laborers has long been pointed out. However, the status of such laborers (state-dependent or private slaves) as well as their role in the agricultural sector remain unclear. See, for example, Wilbur, *Slavery in China*, 197; Scheidel, "Slavery and Forced Labor," 139-140. My hypothesis that bondservant/bondwomen convicts were leased out or assigned to rank-holding landowners and the analysis of the employment of convict labor at the state-managed agricultural farms later in this chapter feed into these debates.

the offices of Granary and the Controller of Works (the two county-level agencies in charge of managing the convict labor force) faced legal prosecution.[168]

As part of their economic agency, bondservant convicts served as a conduit between the state economy, still very much based on labor mobilization and in-kind extraction, and the private markets. While some important concessions have already been made, imperial law often frowned upon the attempts by the local officials to monetize state-dependent labor by hiring convicts out to private users (see section 4 in this chapter). Yet the government recognized some schemes for taxing the market earnings of bondservants instead of direct exploitation of their labor. Cash-hungry local authorities probably welcomed such developments.

Between commoners and convicts

Interstitial social groups that shared some characteristics with convicts but were otherwise incorporated into commoner society illustrate the Qin government's quest for balance between the access to labor and optimization of its maintenance costs. Very little is known about one of such groups, the *hou* ("watchmen") that appears to have primarily consisted of former officials sentenced for various minor misdemeanors. This status disappeared at some point during the Qin-Han interregnum. It is no longer mentioned in the Han texts.[169] Another group, the *sikou* ("robber-

[168] *Liye Qin jian bowuguan cang Qin jian*, 4, tablet 7-304.

[169] The Qin statutes from Shuihudi are the major source of evidence about the *hou* convicts. Legal articles from the collection titled by editors "Miscellaneous excerpts from Qin statutes" (*Qin lü za chao* 秦律雜抄) prescribe the *hou* sentence for those who "pretend to obey a [royal] command, set it aside and not carry it out" or "appoints retainers (*dizi* 弟子) carelessly" (*Shuihudi*, 80-81, slips 4, 6; Hulsewé, *Remnants*, 103-105). A document from Qianlling county archive suggests that same sentence could be passed to servicemen who participated in military action during which their commanding officers were killed. See *Liye Qin jiandu*, vol. 2, 453-455, tablet 9-2287. For a discussion, see Gao Zhenhuan, *Qin Han xingtu zhidu de fazhan*, Chapter 2. For the possible discontinuation of the *hou* legal status after the Qin imperial unification or in the beginning of Han, see Miyake, "Laoyixing tixi," 60; Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 76.

guards") is better illuminated in excavated sources. Considering that some of the Qin legal statutes mention the two groups together, it may be assumed that their socio-economic conditions were relatively similar.[170]

Unlike the previously discussed convict groups, "robber-guards" were not excluded from general society in terms of their entitlement to basic economic assets or through enforced removal from the community. The earliest available comprehensive descriptions of the land-allocation scheme in early empires, the early Western Han "Statute on households", determines the size of land plots given to the *sikou* as one-half of the commoner plot, or half-*qing* (ca. 2.3 hectares). The same proportion applied to residential plots.[171] "Robber-guard" households (*sikou hu* 司寇戶) were included in household registers. They resided in villages and urban wards along with the general populace.[172] The legal status of *sikou* was not hereditary, so their descendants were restored to commoner status.[173]

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[170] The two groups, *hou* and *sikou*, are mentioned together in one of the articles of the Qin "Miscellaneous statutes concerning the Ministry of Finance" (*neishi za* 內史雜), in which the members of both groups are prohibited from being appointed assistants or scribes at the local government offices and storehouses, see *Shuihudi*, 63, slip 193; Hulsewé, *Remnants*, 88. Insofar as scribes constituted a hereditary group of government functionaries who received professional training ordinary people did not have access to (*Shuihudi*, 63, slip 191; Hulsewé, *Remnants*, 87-88), *hou* and *sikou* should have included some degraded representatives of this group who technically qualified for an appointment.

[171] *Ernian lüling yu Zouyanshu*, 216-218, slips 310-316; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 790-793.

[172] See *Liye Qin jiandu*, vol. 1, 32-33, tablet 8-19 (fragment of the list of community's twenty-five households by the rank of household heads); 264, tablet 8-1027 (registration document for a *sikou* household in Cheng village 成里 that probably belonged to Qiling District in Qianling County); 409, tablet 8-1946 (fragment of a registration document for a *sikou* household in Yang ward 陽里 that was probably part of the Town District in Qianling County, which coincided with the county town); vol. 2, 60-61, tablet 9-73; 201, tablet 9-761 (villages of permanent household registration specified for a "robber-guard")

[173] Such was the situation in the beginning of the Western Han when the sons of *sikou* were registered as commoners. See *Ernian lüling yu Zouyanshu*, 234, slips 364-365; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 840-841.

As suggested by their name, "robber-guards" were originally charged with supervision of other convicts. Indeed, in the Qin documents the term is used to denote both the legal status and the supervisory function that could be if necessary performed by bondservants and even hard-labor convicts with a good service record.[174] Such convicts were called "wall-builder and grain-pounder robber guards" (*chengdan chong sikou* 城旦舂司寇) in the official documents.[175] Temporary assignment of supervisory tasks did not affect the nature of their status. They should therefore be distinguished from the "robber-guards" proper.[176] That the Qin statutes repeatedly addressed the problem of the lack of qualified "robber-guards" to supervise the gangs of convict laborers and prohibited the employment of "robber-guards" as servants and cooks suggests that *sikou* were valued primarily as loyal and competent managers of the labor force.[177] An admonition circulated by the Dongting Commandery governor in 213 BCE refers to a negative example of a Controller of Works in Qianling County who was degraded to the "robber-guard" status for his failure to

[174] *Shuihudi*, 53, slips 145-146; Hulsewé, *Remnants*, 71-72. For a similar regulation from the Yuelu Academy collection of Qin documents, see *Yuelu shuyuan cang Qin jian*, vol. 4, 158-159, slip 273.

[175] See, for example, *Liye Qin jiandu*, vol. 2, 455-463, tablet 9-2289.

[176] Contrary to A.F.P. Hulsewé's and other scholars' belief that the hard-labor convicts in Qin were eventually promoted to more privileged convict statuses such as the *sikou* after serving their sentences for a certain period of time, as indeed became the case later on in the Han period (cf. Hulsewé, *Remnants*, 66, n.1 to A65), "wall-builder and grain-pounder robber guards" remained part of the general convict labor force rather than transitional groups between convicts and commoners. This is clearly suggested by the recently published legal fragment from the Yuelu Academy collection that prescribes the resettlement of old or disabled bondservant, "wall-builder," "wall-builder and grain-pounder robber guards," "gatherers of fuel for spirits," and "white-rice sorter" convicts to the Shu 蜀 Commandery in Sichuan where they were to be fed by the local authorities. See *Yuelu shuyuan cang Qin jian*, vol. 4, 213, slip 358 (0635). This regulation probably pursued the goal of allocating the burden of non-productive expenses associated with feeding elderly convicts to the commandery famous for its ample agricultural resources and also geographically isolated from the rest of the state territory to make escape difficult. What is important for us, however, is that such an arrangement was in the first place necessitated by these groups being fully dependent on government rations for their subsistence on reaching the age of retirement because they were not entitled to agricultural land plots.

[177] For the prohibition of employing the "robber-guards" as servants, cooks, and guards for government offices and storehouses, see *Shuihudi*, 54, slip 150; Hulsewé, *Remnants*, 73; *Yuelu shuyuan cang Qin jian*, vol. 4, 158, slip 271.

carry out land reclamation in the county.[178] Such "robber-guards" were indeed well qualified to supervise and organize convict labor.

"Robber-guards" eventually came to be employed in a variety of tasks other than supervision. Two of such tasks mentioned in the excavated documents appear to have involved either a degree of credit, such as delivery of official correspondence that could be entrusted to a "robber-guard" and bondservant convicts but not to the hard-labor convicts, or artisanal skills the government was willing to utilize.[179]

Like the bondservant convicts, "robber-guards" were employed either permanently or in shifts of duty.[180] The main difference between the latter and the commoner conscripts was that they were mobilized on a priority basis. The sequence of mobilization of various pools of labor provided in one of the Liye documents suggests that "robber-guards" were to be called for service only after other, less privileged groups such as convicts and debtor laborers had been fully mobilized.[181]

As a penalty assigned for minor misdemeanors, the *sikou* status did not exclude its bearers from the general society and created an additional pool of qualified labor useful for care-intensive tasks such as supervision. Serving in shifts of duty, the "robber-guards" could be called for work on a permanent basis if needed, for example, when labor projects required large numbers of

[178] *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759.

[179] For the delivery of documents, see *Yuelu shuyuan cang Qin jian*, vol. 4, 119, slips 154-155. For the *sikou* employed at one of the state-managed workshops, the Western Workshop (*Xi gongshi* 西工室), see *Yuelu shuyuan cang Qin jian*, vol. 4, 204, slip 329.

[180] The Yuelu Academy "Statute on abscondence" mentions "robber-guards serving on the permanent basis" (*sikou rong zuo* 司寇冗作), suggesting others were employed in rotating shifts (*geng*), see *Yuelu shuyuan cang Qin jian*, vol. 4, 44, slip 17.

[181] *Liye Qin jian bowuguan cang Qin jian*, 68-69, tablets 16-5, 16-6.

managerial personnel. From a legal standpoint, they were more vulnerable than commoners being subject to more severe punishments for misdeeds, which provided additional incentive for satisfactory performance. Their entitlement to land plots allowed outsourcing maintenance costs to households even to a greater extent than in the case of bondservant and bondwomen convicts.

2.4. Debtor laborers

Excavated Qin documents abound in references to individuals "working off fines, redemption fees, and debts" (*ju zi shu ze (zhai)* 居貲贖責（債） owed to the government. Nine of the eleven inscribed bamboo slips belonging to the "Statute on the Controller of Works" in the Yuelu Academy collection concern the management of this group of laborers, attesting to their importance as a pool of unfree manpower.[182] The Qin law did not draw distinction between loans, fines, and redemption fees, all of which were treated as moneys owed to the state by private individuals. Fines (*fa* 罰) and redemption fees (*shu* 贖) were among the frequently applied forms of punishment for minor offences,[183] while debts (*zhai* 債, represented by the graphic form 責 in the Qin script) originated from the lending activities of local governments, which were considered important enough to warrant special entries in the rhymed admonitions to incumbent officials.[184]

[182] See *Yuelu shuyuan cang Qin jian*, vol. 4, 123, 153-159, slips 167-168, 267-275. "Statute on the Controller of Works" was one of the main bodies of legal regulations of unfree labor, along with the statutes on granaries (*cang lü*) and labor services (*yao lü*).

[183] For a discussion of monetary penalties in Han law, see Tomiya, *Qin Han xingfa*, 32-43; Sun Jianwei 孫劍偉, "Handai shuzui wenti kaoshu" 漢代贖罪問題考述 [A study of redemption of punishments during the Han period], *Beijing daxue yanjiusheng xuezhi* 北京大學研究生學誌 2 (2006): 67-79. For a list of crimes punished with fines and redemption fees under the early Western Han law, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, lxxxviii-ciii.

[184] *Shuihudi*, 170, slips 8-13; *Yuelu shuyuan cang Qin jian*, vol. 1, ed. Zhu Hanmin and Chen Songchang (Shanghai: Shanghai Cishu, 2010), 35, slip 69.

Multiple articles on government lending to private individuals and the treatment of debtors in the Qin statutes regulated the borrowing of state-owned grain,[185] tools,[186] carts and oxen,[187] and female convicts.[188]

The problem that the Qin government regularly had to face was debt or fine collection. Records from Liye abound in accounts of officials attempting to collect amounts of money owed to the government from the households only to discover lack of cash. Such cases were so frequent that a special bureaucratic formula developed to report household's inability to pay debt: "destitute and unable to pay" (*pin fu neng ru* 貧弗能入).[189] For such situations the law instituted the practice of offsetting amounts owed against debtor's labor.

The procedure of "working off debts, fines, or redemption fees" relied on the accounting system that allowed conversion between the values of labor time, money, and monetary commodities (grain, cloth). The Qin statutes assigned monetary values to various categories of labor. Unskilled labor, for example, was evaluated at eight cash per day:[190]

> 有罪以貲贖及有責（債）於公，以其令日問之，其弗能入及賞（償），以令日居之，日居八錢；公食者，日居六錢。
>
> [As regards] those who have committed crimes and who therefore [have to pay] fines or redemption fees, as well as those who have debts towards the government, ask them

[185] *Shuihudi*, 29, slips 38-39; Hulsewé, *Remnants*, 41. For a discussion of this somewhat ambiguous legal fragment, see Hulsewé, "The Influence of the 'Legalist' Government of Qin on the Economy," 220-221.

[186] *Shuihudi*, 23, slip 15; 45, slip 104.

[187] *Shuihudi*, 49, slip 126-127.

[188] *Shuihudi*, 32, slip 48.

[189] See, for example *Liye Qin jiandu*, vol. 1, 43, tablets 8-60+8-656+8-665+8-748.

[190] *Shuihudi*, 51, slip 133; translation follows Hulsewé, *Remnants*, 67-68, with some changes. This article also appears in the Yuelu Academy collection of Qin statutes, see *Yuelu shuyuan cang Qin jian*, vol. 4, 153, slips 257-258.

> on the day designated [for repayment]. Those who are unable to pay or to refund are to work off [their obligations] as from the designated day. Per day they work off eight cash; those fed by the government work off six cash per day.

A two-cash deduction from the daily wage for those who received their grain rations from the government extended labor valuation from monetary to staple goods. A legally established daily grain ration for an adult male laborer was ⅔ *dou* 斗 (ca. 1.3 liters), or two Qin bushels (*shi* 石) per month (one bushel = 10 *dou*).[191] According to the Shuihudi statutes, the fixed official price of grain issued to convict and debtor laborers was 30 cash per bushel.[192] The monthly ration of an adult male laborer was therefore worth 60 cash, or two cash per day, that was the amount deducted from ration recipients' wage.

The same deduction principle applied to the clothing provided to debtor workers. They were obliged to "work off (the value of) these clothes according to the statutes."[193] The statute concerned was probably that "On currency," one article of which set the price of cloth issued to convict laborers at 110 cash per person in winter months and 55 cash in summer for adult males. The amount was reduced for "those of small stature" (*xiaozhe* 小者).[194] These and other clothing prices in the statute are all multiples of 11,[195] which was the official price of a standard piece of hemp cloth ca. 1.85 m long and ca. 57 cm wide.[196] This does not mean that clothing was made of

[191] *Shuihudi*, 51, slip 133.

[192] *Shuihudi*, 53, slip 143.

[193] *Shuihudi*, 51, slips 137-138. For a similar regulation from the Yuelu Academy collection of Qin statutes, see *Yuelu shuyuan cang Qin jian*, vol. 4, 155, slip 264.

[194] *Shuihudi*, 42, slips 94-95.

[195] 77 cash for winter clothes and 44 for summer clothes for "those of small stature" and for female convicts and 44 cash for winter and 33 cash for summer clothes for women "of small stature".

[196] *Shuihudi*, 36, slips 66-67.

no other material but hemp. In fact, excavated texts record that convicts' winter clothes were filled with silk floss wadding.[197] More likely, this and other statutes reflect an earlier practice of setting official prices in cloth currency.[198]

Not only did the Qin statutes integrate labor value and those of coin, currency commodities (cloth) and staples (grain) in a uniscalar system of numerical valuation, they also promoted the notion of fungibility of individual "units" of labor by permitting substitutes to work off others' obligations:[199]

> 居貲贖責（債）者，或欲籍（藉/借）人與并居之，許之，毋除繇（徭）戍。
>
> In case persons who work off fines, redemption fees or debts wish to borrow another person to work these off together, this is to be permitted, but [the other person] is not excused from statute labor or military service.
>
> 百姓有貲贖責（債）而有一臣若一妾，有一馬若一牛，而欲居者，許。
>
> When commoners have fines, redemption fees or debts, and they have a male or female servant, or they have a horse or an ox, with which they wish to work off [their obligations], this is to be permitted.

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[197] *Ernian lüling yu Zouyanshu*, 250-251, slips 418-420; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 920-921.

[198] In both Qin and Han law, the gradation of property crimes was based on the evaluation of damage incurred in terms of multiples of 11. See, for example, *Shuihudi*, 71, slips 8-10; 95, slip 8; 101, slips 33-34. The early Western Han "Statute on Robbery" (*dao lü*) from Zhangjiashan identifies five grades of property crime with thresholds of 22, 110, 220 and 660 cash, see *Ernian lüling yu Zouyanshu*, 112, slips 55-56; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 462-463.

[199] *Shuihudi*, 51, slips 137, 140; translation follows Hulsewé, *Remnants*, 68-69, with minor amendments. The latter of these two articles is also to be found in the Yuelu Academy collection of Qin statutes, where the assumedly pre-imperial terms for private slaves, *chen* 臣 (for male slaves) and *qie* 妾 (for female slaves) are replaced with what would eventually become conventional Han-era terms, respectively *nu* 奴 and *bi* 婢. See *Yuelu shuyuan cang Qin jian*, vol. 4, 156, slip 267.

Curiously, these regulations contradict the commonly shared view that in traditional Chinese legal thought crime was considered in cosmological terms as a violation of universal balance to be redressed by the punishment of the culprit.[200] The attitude toward crime and punishment attested in the late third century BCE Qin law appears to have been more pragmatic.

The high rate of physical mobility offered another challenge faced by the debt- and fine-collecting officials. Debtors were often leaving the counties where their households were registered and where debts and fines were incurred, to perform labor and military obligations, serve as officials and functionaries, or on private business. To address such situations, the Qin law set up conditions and procedure for transferring debt between local governments:[201]

> 有責（債）於公及貲、贖者居它縣，輒移居縣責之。公有責（債）百姓未賞（償），亦移其縣，縣賞（償）。
>
> Whenever persons, having debts towards the government, as well as those [owing] fines and redemption fees, live in another county, the [debt obligations] are to be immediately transferred to the county where they are living to charge them. When the government owes debts to commoners that have not been paid, these obligations are likewise transferred to the county [where the commoners are presently living]; that county repays them.

How this debt transfer mechanism worked in practice is illustrated by documents in the Qianling county archive, particularly by a dossier of twelve "control tallies" (*jiao quan* 校券) that

[200] For a principle according to which a crime had to be counterbalanced by the punishment of perpetrator in order to restore disrupted harmony, see, for example, Hulsewé, "Ch'in and Han Law," in *The Cambridge History of China*, vol. 1: *The Ch'in and Han Empires, 221 B.C. – A.D. 220*, ed. Denis Twitchett and John Fairbank (Cambridge: Cambridge University Press, 1986), 522; Karen Turner, "War, Punishment, and The Law of Nature in Early Chinese Concept of The State," *Harvard Journal of Asiatic Studies* 53.2 (1993): 307; Turner, "Law and Punishment in the Formation of Empire," in Scheidel, ed. *Rome and China: Comparative Perspectives on Ancient World Empires* (Oxford: Oxford University Press, 2009), 68; and Lewis, *Writing and Authority in Early China* (Albany: State University of New York Press, 1999), 23.

[201] *Shuihudi*, 38, slip 76; translation follows Hulsewé, *Remnants*, 48, with amendments.

originated in the County of Yangling 陽陵. Authorities of this county attempted to transfer debt collection responsibilities to Qianling where the individuals owing fines had moved since the time these fines were incurred. The standard formulaic pattern is observed throughout the dossier, reflecting the routine nature of the debt assignment procedure:[202]

卅三年四月辛丑朔丙午，司空騰敢言之：陽陵叔作士五（伍）勝日有貲錢千三百卌四。勝日戍洞庭郡，不智（知）何縣署。· 今為錢校券一，上謁言洞庭尉，令勝日署所縣責，以受（授）陽陵司空。［ 司空 ］不名計，問何縣官計，【付署計】[203]年為報。已訾其家，［ 家 ］貧弗能入，乃移戍所。報署主責發，敢言之。
四月乙酉，陽陵守丞厨敢言之：寫上，謁報，［報］署金布發，敢言之。/ 儋手。（正）

卅四年六月甲午朔壬戌，陽陵守慶敢言之：未報，謁追，敢言之。/ 糾手。
卅五年四月己未朔乙丑，洞庭叚（假）尉觿謂遷陵丞：陽陵卒署遷陵，其以律令從事，報之。當騰，［騰］。/ 嘉手。以“洞庭司馬”印行事。
敬手。（背）

Front side
Thirty-third year [of King Zheng, i.e., the First Emperor], in the fourth month, *xin-chou* being the first day of the month, on the day *bing-wu* (May 10, 213 BCE). Teng, the Controller of Works, dares to report the following. Shengri, a commoner from Shuzuo [Village], Yangling County, has an [outstanding] fine of 1,344 coins.[204] Shengri is on garrison service in Dongting Commandery. I don't know which county he is stationed at. •Now I prepared one control tally for the [abovementioned] amount, and submit it to

[202] *Liye Qin jiandu*, vol. 2, 17-18, tablet 9-10. Another similar document from Yangling dossier was translated in Japanese in Katano Ryūtarō 片野竜太郎, "Riya Shinkan ni mieru saimu rōeki – J1-9-1-12 kan wo chūshin toshite" 里耶秦簡に見える債務労役−J1−9−1−12 簡を中心として [Debtor labor as reflected in the Qin documents from Liye – with a focus on the tablet J1-9-1-12], *Chūgoku shutsudo shiryō kenkyū* 中国出土資料研究 9 (2005): 119, and to English in Sanft, "Population Records from Liye," 260-262.

[203] These three graphs are omitted from the text, but their presence in this sentence is suggested by parallels in other documents of the "Yangling dossier." The omission can be explained either by scribal negligence or by a bureaucratic convention that allowed for such an abridgement.

[204] In the Qin law, the fines were determined in "suits of armor" (*jia* 甲) and "shields" (*dun* 盾), but actual payments were collected in coin. The official conversion rate was 1,344 coins for one suit of armor and 384 coins for a shield. See *Liye Qin jiandu*, vol. 1, 43-46, tablets 8-60+8-656+8-665+8-748. For a discussion, see, for example, Ma Yi, "Qin jian suojian ziqian," 198.

the Commandant of Dongting Commandery so that he orders the county where Shengri is stationed to collect [his fine],[205] so that [the amount] is returned to the Controller of Works of Yangling [County]. [I, the Controller of Works,] do not have the name lists [of conscripts]. May I ask to be informed which county keeps these records, [and also] to report the dates of [Shengri's service at his assigned location].[206] [We] have already inquired of his family, it is poor and cannot pay [his fine], so we transfer [his fine] to the place of his present service. Please mark your response to be unsealed by the official in charge of collecting this debt.[207] [I] dare to report this.

Fourth month, day *yi-you*. Chu, the Provisional Vice-Magistrate of Yangling [County], dares to report this: Please respond with regard to the abovementioned. Response [should be] marked to be unsealed by the [Bureau of] Finance [at the Yangling county court].[208] [I] dare to report this. / Drafted by Dan.[209]

Back side

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[205] Ma Yi suggested a nominal rather than verbal reading of the term *ze* 責 as 'obligation coupon' (*zequan* 責券) to be sent to Yangling County in recognition of Qianling officials' responsibility to collect individual's debt. See Ma Yi, "Liye Qin jian zhong jizu," 198. While agreeing with her interpretation of this and other Yangling documents as focused on the assignment of debt collection and respective accounting formalities, I see no reason for a narrow nominal reading of the term in this particular sentence.

[206] It was noted that the term *nian* 年, 'year', is an abridgement for 'date' (*nian yue ri* 年月日, 'year, month, day'). See Wang Huanlin, *Liye Qin jian jiaogu*, 67. This information was important for identifying the date when the debtor was able to start working off the amount owed to the state, as the Qin law stipulated that the debts could not be offset against the term of conscript labor service.

[207] The formulaic phrase *shu* 署 (name of the office) *fa* 發, "mark to be unsealed by (name of the office)" is attested in the collection of doubtful legal cases from Zhangjiashan tomb no. 247, see ZJS, 333, slip 7. For an analysis of the phrase, see Lau and Lüdke, *Exemplarische Rechtsfälle*, 104-105, note 614.

[208] For the functions of this department, see Robin Yates, "Bureaucratic Organization of the Qin County of Qianling."

[209] The meaning of the graph *shou* 手 (literally 'hand') in postposition to personal names in the end of a document remains a debated topic. Scholars disagree as to whether the individuals, many of whom can be identified as clerical personnel, were involved in drafting respective texts or handling administrative transactions recorded in the documents. It has been convincingly demonstrated that the name lists that follow the main body of Han documents excavated at Juyan and Three Kingdoms (220-280 CE) Wu household registers from Zoumalou 走馬樓 (Hunan Province) do not necessarily include the names of persons who actually inscribed the texts. These lists, therefore, are not signatures but rather statements of responsibility of an official or a group of officials for the content of a document. See Enno Giele, "Signatures of "Scribes" in Early Imperial China," *Asiatische Studien* 59.1 (2005): 365-384; Xing Yitian, "Han zhi Sanguo gongwenshu zhong de qianshu" 漢至三國公文書中的簽署 [Signatures in the official documents from the Han to Three Kingdoms period], *Wenshi* 文史 3 (2012): 166-188. However, it should be observed that neither Han nor Wu documents are using the *shou* clause that seems to have been specific to the Qin and possibly early Western Han bureaucratic practice and pointed at the more immediate physical connection between an individual and an inscribed text. This allowed some scholars to treat it as a real signature, which is tentatively supported by a recent handwriting analysis of the Liye documents. See Zhang Chunlong and Long Jingsha 龍京沙, "Xiangxi Liye Qindai jiandu xuanshi" 湘西里耶秦代簡牘選釋 [Annotations to the selected Qin documents from Liye, Xiangxi], *Zhongguo lishi wenwu* 中國歷史文物 1 (2003): 11; LYQJ, 5, n. 12; Maxim Korolkov, "Criteria for Discerning Individual Writing Habits".

> Thirty-fourth year, in the sixth month, day *jia-wu* being the first day of the month, on the day *ren-shu* (July 19, 212 BCE). Qing, the Provisional Magistrate of Yangling [County], dares to report this: [We] have not received the response, beg [you] to chase [this matter]. [I] dare to report this. / Drafted by Jiu.
>
> Thirty-fifth year, in the fourth month, day *ji-wei* being the first day of the month, on the day *yi-chou* (May 18, 211 BCE). Xi, the Temporary Commandant of Dongting [Commandery],[210] addresses to the Vice-Magistrate of Qianling [County]: Yangling conscripts were assigned to Qianling. Pursue this matter in accordance with statutes and ordinances, and submit the report. Copy whatever warrants to be copied. / Drafted by Jia.
>
> To be processed [under the authority of] the seal of the Military Commander of Dongting [Commandery].[211]
> Drafted by Jing.

While the individuals mentioned in the "Yangling dossier" belonged to a specific category of state debtors, their case illustrates how local administrations handled situations in which debt had to be collected at distance when the money-owing households were unable to repay the cash.[212] To account for its "bad loans," the Yangling government had to make sure that the responsibility to collect the debts of its twelve registered inhabitants was assumed by another county where these

[210] For the office of Commandant (*wei* 尉) at the commandery level during the Qin Dynasty, see Yan Gengwang, *Zhongguo difang xingzheng zhidu shi*, vol. 1: *Qin Han difang xingzheng zhidu*, 147-187.

[211] The office of Military Commander at the commandery level (*jun sima* 郡司馬) is attested in both transmitted and excavated sources. Prior to the twentieth century discoveries of Qin and Han legal texts and seal imprints in clay, it was believed to be an office specifically for the frontier commanderies. See *Han jiuyi* 漢舊儀 [*Old rites of the Han Dynasty*], in *Han guan liu zhong* 漢官六種 [*Six treatises on the Han offices*], ed. Sun Xingyan 孫星衍 (Beijing: Zhonghua, 1990), *juan* 2, 81. Excavated imprints of Qin seals demonstrated that the office existed also in the inner commanderies of the empire. See Wang Wei, *Qin xiyin fengni zhiguan dili yanjiu*, 264-265. The office endured into the early Western Han when *jun sima* was in charge for suppressing banditry (ZJS, 291, slip 468) and was subordinate to the Commandery Governor (*taishou* 太守). See Chen Zhi 陳直, *Hanshu xinzheng* 漢書新證 [*New analysis of the Book of Han*] (Beijing: Zhonghua, 2008), 129-130.

[212] Ma Yi points out two possibilities. The Yangling individuals could have been dispatched to the southern frontier as a punishment for some offences they committed earlier. Alternatively, they were performing their regular statute service as every adult male subject was obliged to do in the Qin Empire. See Ma Yi, "Liye Qin jian zhong jizu," 199. Charles Sanft convincingly argues that the men mentioned in the Yangling dossier were performing their regular military service and were not working off their debts at the time when these documents were dispatched. See Sanft, "Population Records," 263-266.

individuals were currently residing. To do so, a Yangling official dispatched a control tally to Dongting Commandery where he knew the debtors were presently located.

Individuals owing money to the government had a legal option of settling their dues in coin.[213] The majority of mobilized servicemen hardly had such an opportunity. As with other kinds of obligatory labor, garrison service (*shu* 戍) involved no remuneration. The Liye documents indicate that servicemen were not expected to carry any cash. Whatever coin they owed to the government was to be levied from their households back home.[214]

The lack of cash in debtors' households is a recurrent topic in official records. None of the twelve households approached by the Yangling officials trying to collect outstanding fines was able to pay in coin. Similar cases are attested in other Liye documents dealing with the attempts of local officials to collect debts.[215] Even individuals in possession of higher meritorious ranks who were at least theoretically entitled to large land allotments were often unable to raise sufficient amounts to pay their fines, as attested by eighteen epitaphs of construction workers excavated at the western side of the First Emperor's burial complex. Five of them had the fourth rank *bugeng* 不更, which did not save them from working off their fines at one of the empire's largest and most onerous construction projects.[216] Monetary liquidity seems to have been a serious problem for many households in the Qin Empire, including those that probably had some landed possessions.

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[213] *Yuelu shuyuan cang Qin jian*, vol. 4, 154, slips 260-261.

[214] See, for example, *Liye Qin jiandu*, vol. 1, 43, tablet 8-60+8-656+8-665+8-748.

[215] *Liye Qin jiandu*, vol. 1, 43-46, tablet 8-60+8-656+8-665+8-748.

[216] Shihuang ling Qin yongkeng kaogu fajuedui 始皇陵秦俑坑考古發掘隊, "Qin Shihuang ling xice Zhaobeihucun Qin xingtu mu" 秦始皇陵西側趙背戶村秦刑徒墓 [Tombs of Qin convicts at Zhaobeihu village at the western side of First Emperor's burial complex], *Wenwu* 3 (1982): 6-7.

While insisting that debtors work off their due and threatening local officials with fines for the failure to make debtors work for the government,[217] the Qin lawgivers were prepared to constrain their claims on debtors' labor in order to make sure that their households survived in spite of being temporarily stripped of a crucial labor resource. No household was to be depleted of its last remaining laborer,[218] and all debtor workers were allowed to return home for the periods of agricultural work, even though the definition of the latter probably differed in pre-imperial and imperial Qin legislation.[219]

During the periods of their actual work for the government, however, debtor laborers were treated more like hard-labor convicts than the more privileged convict groups. The Qin law demanded that debtors were assigned physical labor rather than supervisory and managerial functions. Indeed, in many cases debtors were probably working side by side with convicts, received same food rations, and were otherwise hardly discernable from convicts except for the limited period of their service.[220]

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[217] *Yuelu shuyuan cang Qin jian*, vol. 4, 153-154, slips 258-259.

[218] *Shuihudi*, 51, slips 136-137; Hulsewé, *Remnants*, 68.

[219] The statute from the Yuelu Academy collection specifies that leaves, each twenty-five days long, were allowed during the time of sowing, weeding, and harvest. See *Yuelu shuyuan cang Qin jian*, vol. 4, 159, slips 274-275. A similar regulation from the Shuihudi "Statute on the Controller of Works" mentions only the first two of these agricultural works, see *Shuihudi*, 53, slip 144; Hulsewé, *Remnants*, 67.

[220] For debtor laborers working side by side with hard-labor convicts and being prohibited from leading convict labor gangs, see *Shuihudi*, 53, slips 145-146; Hulsewé, *Remnants*, 71; and *Yuelu shuyuan cang Qin jian*, vol. 4, 158, slip 273.

3. Unfree labor at the imperial frontier: A case study of Qianling County

3.1. Compulsory labor at the frontier

The Qianling county archive provides by far the richest data on the size, composition, and employment of the unfree labor force at any particular location in the Qin Empire. Some 150 "registers of convict laborers" (RCL) or fragments thereof were published in the first two volumes of *Liye Qin jian* as well as in the series of articles and online publications.[221] These records represent one of the largest document categories in the Liye archive.

RCL greatly vary in terms of the amount of information contained. As noticed previously, each government agency that employed one or more convicts for a period of one day or longer was required to submit an account to the county court. These accounts were subsequently verified against the accounts by the offices of Granaries and the Controller of Works who provided convict laborers to other offices. County governments had to draft monthly summary accounts on the use of convict labor, which were subject to auditing by the commandery and central authorities.

An RCL drafted on December 6, 218 BCE, by the authorities of Qiling, one of the three districts of Qianling County, for example, reported on the two hard-labor convicts received from

[221] Apart from the first two volumes of the Liye materials, registers and fragments from the yet unpublished strata of the Liye well no. 1 finds were made available in Hunan sheng wenwu kaogu yanjiusuo, "Longshan Liye Qin jian zhi "tubu" 龍山里耶秦簡之"徒簿" ["Registers of convict laborers" on the Qin slips from Liye, Longshan], *Chutu wenxian yanjiu* 12 (2013): 101-131. This publication is probably supposed to be an exhaustive presentation of this group of documents. Additionally, a number of documents were reconstructed from the already published fragments. Such reconstructions are often published online, particularly on the site "Bamboo and Silk Manuscripts Web" (*Jianbo wang* 簡帛網) hosted by the Wuhan University Center of Bamboo and Silk Manuscripts 簡帛研究中心 (www.bsm.org.cn). See, for example, Xie Kun 謝坤, "*Liye Qin jian (yi)* zhuihe yi ze" 《里耶秦簡（壹）》綴合一則 [A reconstruction of documents published in the first volume of Liye materials], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2277. Some of these reconstructions have been accepted by the compilers of *Liye Qin jiandu*, which resulted in alterations between the first and the second volumes of this publication. For example, a fragment originally published as tablet 8-145 in volume 1 was subsequently recognized as a part of a longer RCL, which also included fragments with excavation numbers 9-2294 and 9-2305. As the result, the three fragments were joined together to reconstitute the original document (the process known as *zhuihe* 綴合 in the manuscript scholarship), which was published in the second volume of *Liye Qin jiandu* as tablet 9-2289. See *Liye Qin jiandu*, 463, tablet 9-2289, n. 53.

the Controller of Works and employed for repairing the lodge at a relay station.[222] A register submitted by the office of Granaries in 212 BCE accounts for the employment of 145 convicts during the period of one month. Some thirty different occupations are mentioned.[223] Such comprehensive registers are especially useful for the study of the size and economic functions of convict manpower. RCL corpus as a whole sheds light on the patterns of use of convict labor as well as on the role of various local government agencies as employers of the unfree labor force.

Because of the partial preservation, only forty-five RCL excavated at Liye still bear the dates that make them useful for the analysis of temporal dynamics of convict labor in Qianling County. This data is summarized in Appendix 4. It suggests that the use of convict labor in Qianling picked up from 220 BCE and culminated in 217–216 BCE when 24 of the 45 dated registers and fragments (53%) were drafted. The numbers of RCL sharply declined in the following years (see Chart 4.1).

[222] *Liye Qin jiandu*, vol. 1, 229, tablet 8-801.

[223] *Liye Qin jian bowuguan cang Qin jian*, 56, tablet 10-1170.

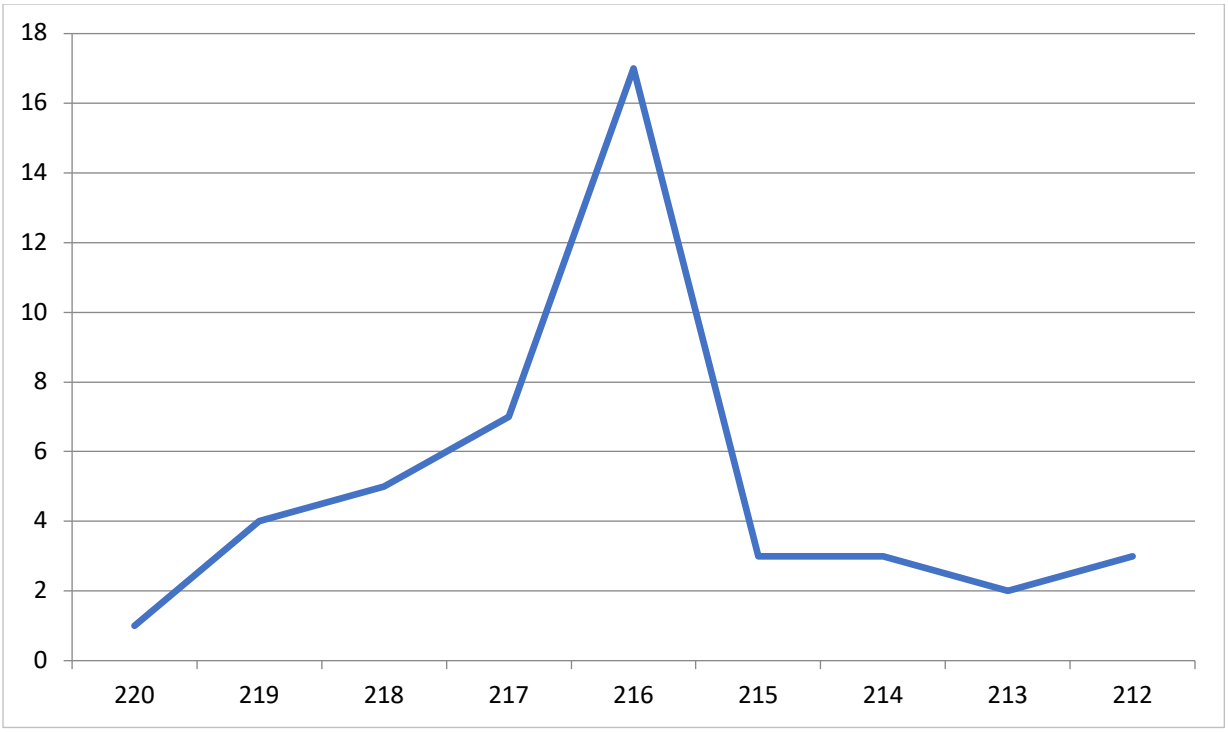

Chart 4.1: Dynamic of convict labor economy in Qianling County by the number of RCL per year

This chart can be compared to Chart 3.3 in Chapter 3, which indicates extraordinary concentration of convicts and conscripted laborers and soldiers in Qianling in 216 BCE. Although the Liye documents do not provide an unambiguous explanation for this phenomenon, coincidence seems unlikely. Rather, I suspect this dynamic is explained by the Qin government's preparations for the next round of southward expansion, which followed in 215–214 BCE and resulted in the foundation of three new commanderies, Guilin 桂林, Xiang 象, and Nanhai 南海, in the present-day Guizhou and Guangdong provinces and the Guangxi Zhuang Autonomous Region of China.

The *Shiji* account of this campaign mentions forced mobilization of various degraded groups such as captured runaways and sons-in-law living with their wives' families who were dispatched to garrison the newly conquered territories. A later commentary suggests some 500,000

men were levied.[224] During the run-up to this massive campaign, the Qin government probably also deployed large numbers of unfree manpower in the commanderies immediately adjacent to the new war theater, including Dongting Commandery. Due to its mobility, the unfree labor force was central to the projects of imperial expansion and control.

The size of the convict population in Qianling and its proportion to the total population of the county cannot be established with precision, but the RCL evidence suggests both numbers were relatively significant.[225] Registers dated from December 216 BCE and January 213 BCE record 125 hard-labor convicts and 145 bondservant and bondwomen convicts, accordingly. The latter figure is deduced from the record of 4,376 man-days worked by convicts in the course of one month.[226] However, while many man-day numbers on this register are, indeed, the multiples of 30, suggesting they stand for the work done by one or more individuals working every day during the month, other numbers cannot be divided by 30, so some convicts could have been either employed part-time or assigned different tasks in course of the month.

Moreover, it is unclear if these numbers are representative of the average convict population of the county. The Liye documents make clear that local authorities could be assigned additional labor force for particular projects such as opening up new agricultural fields.[227] Such reinforcements were removed as soon as the work was completed. However, neither of the two

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[224] *Shiji*, 6.253. The latter group probably included sons of debtors given in pawn to creditors and effectively serving as indentured laborers in their households. Such men were sometimes given one of the creditor's daughters in marriage, see Hulsewé, *Remnants*, 209, n. 12. The number of mobilized personnel is provided in Xu Guang's 徐廣 (352–425 CE) commentary to the *Shiji*.

[225] An attempt to estimate the numbers of convict laborers and their relationship to the total population of Qianling County was made by Gao Zhenhuan, and the following passage partly builds upon his conclusions, see Gao, *Qin Han xingtu zhidu de fazhan*, Chapter 3. Neither of Gao's estimates is conclusive in view of high volatility in the numbers of both convict and general population of the county and fragmentary preservation of population data.

[226] *Liye Qin jian bowuguan cang Qin jian*, 56, tablet 10-1170.

[227] *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759.

above-mentioned RCL indicates that large groups of convicts arrived from outside of Qianling.[228] We can therefore reasonably assume that the two numbers represent the size of convict labor force normally available to local authorities.

As discussed previously, the offices of Granaries and the Controller of Works managed two distinct bodies of convict laborers. To estimate the total size of convict population, it is necessary to add up the numbers for these two agencies. Unfortunately, no numbers for both agencies are available for the same month or even the same year. Possible changes in the overall number of convicts in Qianling between 216 and 213 BCE warn against drawing conclusions on the basis of the two RCL. Still, an estimate of the total number of convicts in the county between 200 and 300 seems plausible in view of the available record.

How do these numbers relate to the general registered population of Qianling County? As discussed in Chapter 2, the Qianling population oscillated between the high number of 191 households and the low number of 155 households between 219 and 214 BCE.[229] With the average household including 6.4 individuals, the total size of registered population amounted to 992 and 1,222 people.[230] Additionally, a certain number of indigenous households may have been registered separately. It was speculated that the total number of households in Qianling could have been as high as 400 with more than 2,500 individuals.[231] Convicts, therefore, could easily have

[228] The RCL record the transfers of convicts to work outside the county, so it may be assumed similar records would have been made should laborers have been received from outside the county.

[229] *Liye Qin jiandu*, vol. 1, 166-167, tablet 8-487+8-2004.

[230] For the Liye household registers and the average size of households, see *Liye fajue baogao*, 203-208; *Liye Qin jian bowuguan cang Qin jian*, 73-74; Sanft, "Population Records," 249-269.

[231] This argument builds upon the Liye document on the partly preserved tablet 16-950 that records 106 households with 1040 adult males, with almost ten adult males per household. These households are much larger than those recorded in the above-mentioned household registers, leading some researchers to speculate they may have belonged to the non-*huaxia* population organized in larger kinship groups than the nuclear households. See Tang Junfeng, "Liye Qin jian shuo shi Qin dai de "jian hu" he "ji hu".

represented well over 10% of the recorded permanent population of the county and considerably larger a portion (probably more than 50%) of its labor force.[232]

Apart from the offices of Granaries and the Controller of Works that specialized in managing convicts, the government agencies that regularly employed unfree labor included the offices of the Armory (*ku* 庫), Fields (*tian* 田), Livestock (*chu* 畜), and the County Treasury (*shaonei* 少內), as well as the three districts of Qianling County: Erchun, Qiling, and Town Districts. Data in Appendix 4 suggests the territorial administrative units were the most active users of convict labor. Erchun District authorities figure in 13 RCL, Qiling in 8, and the Town District in 4 RCL as employers of convicts. Offices of Fields and Livestock appear in 5 RCL each, the Armory in 3 RCL, the Lesser Treasury in 2, and the offices of Iron 鐵 and County Commandant 尉 each in one RCL. This distribution pattern is also observable for the entire RCL corpus.

Table 4.2: Employers of convict laborers by evidence in the Liye RCL

Offices		**Dated RCL**		**Entire corpus**	
Districts	Erchun	25	13	34	17
	Qiling		8		10
	Metropolitan		4		7
Fields		5		12	
Livestock		5		10	
Armory		3		9	

[232] Gao suggests that convicts constituted as much as 1/3 of the population of Qianling County, in which case they accounted for the majority of labor force available to the local authorities. See Gao, *Qin Han xingtu zhidu de fazhan*, Chapter 3. His estimate does not account for the somewhat enigmatic population numbers on the tablet 16-950.

Treasury	2	7
Commandant	1	2
Iron	1	1
Total	**42**	**75**

The small size of a typical labor gang deployed in districts, which consisted of two to ten convicts, is probably explained by supervision considerations.[233] Larger numbers of convicts would require specialized supervisory personnel, but the small gangs could be managed by the district head and his subordinate officials. Most tasks were associated with construction, repair and maintenance, and processing of materials required for these works. Registers from Erchun District mention earth-moving (*fu tu* 負土), tile and pottery making (*zuo wa* 作瓦, *zhen* 甄), gathering of feathers (*bu yu* 捕羽, probably for arrows) and reeds (*qu mao* 取茅, probably for matting and roof covering).[234] In Qiling, convicts were recorded repairing a lodge at the relay station (*zhi chuan she* 治傳舍) and delivering correspondence between the district and the county seat.[235] The Town District employed convicts to collect feathers and capture unspecified birds or animals submitted as tribute to the imperial court (*bu xian* 捕獻).[236]

[233] One of the best-preserved and longest RCL excavated at Liye lists six labor gangs dispatched by the office of the Controller of Works to three Qianling districts in the course of the 10th month of the 32nd year of the First Emperor (216 BCE), which numbered respectively 5, 2, 1, 4, 2, and 2 hard-labor convicts. See *Liye Qin jiandu*, vol. 2, 455-463, tablet 9-2289. The largest labor district-managed convict labor gang is recorded for the 8th month of the 30th year of the First Emperor (217 BCE). It probably consisted of ten individuals working in Erchun District in the course of one month, to the total of 292 man-days. See *Liye Qin jiandu*, vol. 1, 283, tablet 8-1143+8-1631.

[234] *Liye Qin jiandu*, vol. 1, 283, tablet 8-1143+8-1631; 284, tablet 8-1146; 343, tablet 8-1515; vol. 2, 23-24, tablet 9-18; 147-148, tablet 8-1370+9-516+9-564.

[235] *Liye Qin jiandu*, vol. 1, 229, tablet 8-801; vol. 2, 48, tablet 9-38; 476, tablet 9-2341.

[236] *Liye Qin jiandu*, vol. 1, 82-83, tablet 8-142; 417-418, tablet 8-2011.

Convict labor gangs employed by the county offices were also typically of a small size. Of the twenty-three groups of convicts dispatched to work in other offices that are recorded in the two longest RCL, majority consisted of one to three individuals. The four gangs of 17 bondwomen (no. 42 in Appendix 4) and 26 bondservant convicts,[237] and 23 and 24 male hard-labor convicts working in the Office of Fields are by far the largest groups recorded in the Liye registers. The latter two, amounting to 47 convicts, represented almost 40% of the entire convict labor force managed by the Controller of Works at the end of 216 BCE (no. 34 in Appendix 4), which, in turn, could have been about half of the total convict population in the county. The relatively large size of labor gangs working for the office of Fields in 216 and 213 BCE and composed of both hard-labor and bondservant/bondwomen convicts suggests that the state-managed farms were the major employers of unfree labor at the southern frontier of the Qin Empire.[238] Other Qianling documents confirm that convicts were routinely deployed in agricultural production, which enjoyed a high level of priority among other tasks.[239]

While it remains unclear if the Office of Fields employed hard-labor and bondservant/bondwomen convicts for the same tasks, other RCL from Liye attest to some degree of differentiation. Hard-labor convicts were usually assigned production and construction tasks, while bondservants often performed supervisory functions or were employed as servants and administrative assistants. A register submitted in 218 BCE by the Armory (no. 6 in Appendix 4),

[237] *Liye Qin jiandu*, vol. 1, 196-197, tablet 8-663. The date of this register is unknown.

[238] A tag with a title of an annual report on the use of convict laborers submitted by the Office of Fields to the Qianling county court in 218 BCE probably refers to RCLs prepared in course of a year. See *Liye Qin jiandu*, vol. 1, 31-32, tablet 8-16. If preserved, such collection would have facilitated a more accurate assessment of the size of convict labor forced employed by the farm-managing agency.

[239] See, for example, *Liye Qin jiandu*, vol. 1, 217-218, tablet 8-755+8-756+8-757+8-758+8-759; vol. 2, 33-35, tablet 9-22; 96, tablet 9-258.

one of the major employers of convict labor force, illustrates the distribution of tasks among various groups of convicts.[240] Five hard-labor male convicts were repairing armor, carts and wagons, while three female convicts were weaving silk yarn. A bondservant guarded the gate, presumably that of the compound where his fellow-convicts were laboring. Artisanal works were primarily conducted in the offices of Granaries and Controller of Works, at the Armory, and at the County Treasury, all of them the major employers of convict laborers (see Table 2). These works are among the most frequently mentioned labor tasks in the Liye RCL. Along with other small-scale labor tasks such as cleaning or repairing roads, collecting firewood, tending animals at the state-managed cattle farms, and transporting materials, artisanal labor was typical for the convict economy in the Qianling County outside of its agricultural sector.

As discussed previously, bondservant convicts were routinely entrusted supervisory and administrative tasks. The longest available list of works performed by bondservants and bondwomen in Qianling County (no. 42 in Appendix 4) suggests that 15% of convicts were assigned various non-productive tasks, including supervision of prisons (*lao sikou* 牢司寇), guarding captives (*shou qiu* 守囚), guarding administrative and storage facilities (*shou fu* 守府), accompanying county officials on their travels to submit accounts and reports to higher authorities (*yu li shang ji* 與吏上計), delivering documents (*xing shu* 行書), serving as runners for the county court or other officials (*ting zou* 廷走, *li zou* 吏走), and participating in legal investigation as assistants to the county scribes (*yu shi ju yu* 與史具獄).[241] The actual percentage of convicts engaged in supervisory and administrative tasks was almost certainly higher, since the register on

[240] *Liye Qin jiandu*, vol. 1, 203-204, tablet 8-686+8-973. For the translation, see section 2.1 of this chapter.

[241] *Liye Qin jian bowuguan cang Qin jian*, 56, tablet 10-1170.

tablet 10-1170 does not itemize the tasks assigned to the convicts who were dispatched to other offices, some of whom were probably employed as supervisors and guards of other convicts.[242]

As already mentioned in this chapter, bondservant convicts were also routinely used as runners, cooks, and servants.[243] In the lack of sufficient number of bondservants, these tasks could also be performed by debtor laborers. Bondwomen could be employed as servants or cooks only when neither of the former two categories was available.[244] Bondservants detained among the hard-labor convicts were not allowed to serve as cooks or servants, nor were they to be appointed to guard offices and storage facilities, nor to assist officials in administrative tasks.[245] In terms of the hierarchy of convict statuses, hard-labor convicts stood below those temporarily detained among them. It may therefore be safely assumed that the Qin law also banned "wall-builders" from taking up the tasks associated with service and administrative assistance. In practice, hard-labor convicts were occasionally employed in supervisory tasks and administrative assistance. Of 125 convicts recorded in the RCL on tablet 9-2289 (no. 34 in Appendix 4), at least four were assigned supervisory (*sikou* 司寇) and administrative (submission of accounts, *yu li shang ji* 與吏上計) duties.[246] These, however, appear to be rather exceptional cases compared to the routine

[242] As exemplified by other RCLs, see, for example, *Liye Qin jiandu*, vol. 1, 203-204, tablet 8-686+8-973 (for the office of Armory); 196-197, tablet 8-663 (for the Granaries); 180, tablet 8-567 (for an unspecified office).

[243] For the convicts cooking for officials, see tablet 8-697: *Liye Qin jiandu*, vol. 1, 205-206. Another Liye RCL probably records convicts assisting officials in submitting "merit reports" that served as the basis for decisions on the officials' promotions (*yu shang gong li* 與上功吏), see *Liye Qin jiandu*, vol. 1, 351-352, tablet 8-1531. Interpretation of this phrase is far from certain, as the grammar would suggest a different order of graphs (*yu li shang gong* 與吏上功, as in the phrase *yu li shang ji* 與吏上計). For the convicts employed as cooks, see, for example, *Liye Qin jiandu*, vol. 1, 261, tablet 8-1008+8-1461+8-1532; 301, tablet 8-1259 (for other convicts).

[244] *Yuelu shuyuan cang Qin jian*, vol. 4, 122-123, slips 163-164.

[245] *Yuelu shuyuan cang Qin jian*, vol. 4, 158, slips 271-273.

[246] *Liye Qin jiandu*, vol. 2, 455-463, tablet 9-2289.

employment of bondservants and bondwomen for servant, administrative and other care-intensive tasks.

One entry in the register of bondservant and bondwomen convicts on tablet 10-1170 suggests they were sometimes acting as commercial agents: for almost one month, a bondwoman was employed by the County Treasury to buy clothes for other convicts (*mai tu yi* 買徒衣).[247] While it is unclear where and from whom she was buying, this record fits into the picture of bondservant/bondwomen convicts involved in commercial activities, as already discussed in this chapter.

Being a county with a relatively large contingent of convicts, Qianling was regularly donating labor to other counties in Dongting Commandery. 30 of 145 (20%) of bondservant and bondwomen convicts recorded on tablet 10-1170 were transferred to work outside of the county, as were 11 of 125 hard-labor convicts (8.8%) in the register on the tablet 9-2289. If not a coincidence, a higher proportion of bondservant/bondwomen convicts working in other counties may reflect lower monitoring costs incurred in relocating these convicts of relatively "privileged" status, as opposed to hard-labor convicts.

The RCLs excavated at Liye shed light on the state economy that heavily relied on the unfree labor in productive, managerial, and possibly also commercial tasks. Although neither total number of convicts at any moment of time nor their ratio to the total population of the county can be established on the basis of available data, it is very likely that they represented a very high percentage of the labor force available to the local authorities, probably well over 50%. The broad range of production tasks the convicts performed, especially the artisanal ones, suggests they were providing much of the local supplies of materials and products needed for the quotidian operation

[247] *Liye Qin jian bowuguan cang Qin jian*, 56, tablet 10-1170.

of government agencies, including the means of transportation, writing stationery, weapons, storage vessels, clothes and tableware for the government functionaries. Insofar as convicts were working for the state on a long-term basis, investment in their artisanal training was considered worthwhile, and some RCL record convicts learning such skills as pottery and cart making.[248]

Considering the very small size of Qianling County, its relatively limited demand for materials and goods could be satisfied by small-scale production operations carried out by small groups of convicts. Convict labor was not concentrated at the county town. Instead, the two outlying districts, Erchun and Qiling, were among the most active users of convicts. Their organization in small labor gangs reduced coercion costs. This was particularly important considering that district administrations consisted of just two or three functionaries who would be unable to coerce any substantial number of convicts into obedience. The only branch of the state economy where convict laborers were consistently organized into larger labor gangs was agriculture. Base on the available data, the Office of Fields could have been employing as many as 60-70 convicts, or 25-35% of convict population of the county at a time. This number approached one-third or even one-half of that of the registered farmer households in the county. The convicts' contribution to the overall agricultural production in the area should have been substantial. Especially considering the large number of officials and military servicemen in proportion to the registered population at the frontier, the maintenance of the Qin imperial presence in this area would have been problematic if not impossible without agricultural intensification. The convict labor provided a necessary instrument.

[248] For a convict learning to make pottery, see *Liye Qin jiandu*, vol. 1, 284, tablet 8-1146 (no. 7 in Appendix 4). For cart making, see *Liye Qin jiandu*, vol. 2, 455-463, tablet 9-2289 (no. 34 in Appendix 4).

Bondservant and bondwomen convicts were important in the everyday operation of government, especially in maintaining regular communication between offices. In spite of the legal prohibition to employ women for delivering official correspondence, both bondservant and bondwomen were routinely performing this task.[249] Such care-intensive assignments as delivery of government documents and possibly even participation in their drafting required a very different kind of motivation than tilling agricultural fields, and it can be assumed that some of Qianling bondservant and bondwomen convicts possessed sufficient legal and economic privileges to guarantee certain degree of loyalty and diligence.

3.2. Beyond convict labor: debtor officials and military servicemen at the frontier

On October 24, 217 BCE, Bian 扁, a provisional Treasurer of Qianling, submitted the following account to the county court:[250]

> 卅年九月甲戌，少內守扁入：佐鼂貲一盾、佐斗四甲、史章二甲、□☐
> 二甲、鄉歜二甲、發弩囚吾一甲、佐狐二甲，凡廿五甲四盾，為☐
>
> Thirtieth year [of King Zheng, i.e., the First Emperor], in the ninth month, on the day *jia-xu* (October 24, 217 BCE). Bian, the provisional treasurer [of Qianling County], entered [into the treasury]: Assistant Gui's fine, one shield; Assistant Dou's [fine], four suits of armor; Scribe Zhang's [fine], two suits of armor; …two suits of armor; District [Head] Chu's [fine], two suits of armor; Crossbowman [Lieutenant] Qiuwu's [fine], one suit of armor; Assistant Hu's [fine], two suits of armor. Altogether twenty-five suits of armor and four shields, converted…

[249] For the legal prohibition to entrust women and children with delivering official documents, see *Yuelu shuyuan cang Qin jian*, vol. 4, 132, slips 194-195. Liye documents often include notes on the courier delivering the document. These couriers were often bondwomen, see, for example, *Liye Qin jiandu*, vol. 1, 94-95, tablet 8-157; 189-190, tablet 8-647; 191-192, tablet 8-651; vol. 2, 134-135, tablet 9-470; 236-238, tablet 9-986; 376, tablet 9-1863. Bondservants also frequently appear among couriers, see, for example, *Liye Qin jiandu*, vol. 1, 260, tablet 8-1005; 285, tablet 8-1155; 343, tablet 8-1515; vol. 2, 255, tablet 9-1089; 420-421, tablet 9-2105; 447-452, tablet 9-2283.

[250] *Liye Qin jiandu*, vol. 1, 390, tablet 8-1783+8-1852.

The custom of denominating fines in suits of armor (*jia* 甲) and shields (*dun* 盾) presumably goes back to the times when Qin did not yet cast coins, and fines were collected in the much-needed artisanal products. By the time of the imperial unification, both suits of armor and shields were units of account with fixed monetary value of, respectively, 1,344 coins and 384 coins. Twenty-five suits of armor and four shields amounted to 35,136 coins, and this amount was most likely specified in the end of the document, following the graph *wei* 為.[251] The notches on the right side of the tablet record the amount of 35,100.[252]

According to the Qin law, financial penalties were imposed on the officials for a variety of misconduct, mistakes, and failures to meet deadlines and comply with procedures.[253] An undated fragment of a wooden tablet from Liye lists three district officials, a provisional bailiff and his two assistants, who were fined, respectively, fourteen, one, and six suits of armor, or 18,816, 1,344, and 8,064 coins.[254] The former amount equaled as much as 627.2 *shi* (12,544 liters) of grain at the official price of 30 coins per *shi*, which probably exceeded the official's annual grain salary by at

[251] Cf. another Liye document in which the whole formula survived: 冗佐公士䜌道西里亭貲三甲，為錢四千卌二. See *Liye Qin jiandu*, vol. 1, 43-46, tablet 8-60+8-656+8-665+8-748.

[252] The editors of Liye materials originally mistakenly read the number as 85,100, see *Liye Qin jian*, vol. 1, 84; *Liye Qin jiandu*, vol. 1, 390. Later reexamination of the tablet resulted in the correction (Huang Haobo, personal communication).

[253] For the beginning of the Western Han period, an exhaustive list of offences punished with fines is provided in Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, xciii-civ. It immediately becomes clear that monetary penalties were primarily assigned for misdemeanors associated with official service. Consider, for example, the crimes punished with the fine of two *liang* (c. 31g) of gold listed on p. xcix of Barbieri-Low's and Yates' catalogue: "226. The Bailiff of the District, the Bailiff of the Office, and the officials in charge failing to capture arsonists. 228. Losing an official document, authorization tally, or contract tally… 229. Government officials who are entrusted with or have oversight over valuable items privately and without authorization borrowing or lending them. 230. Officials making a mistake or not being careful in trying legal case resulting in a sentence of redeeming the death penalty…"

[254] *Liye Qin jiandu*, vol. 1, 131, tablet 8-300.

least six times.[255] This amount of money was also more than sufficient to purchase four adult male slaves.[256] One wonders if culprits were able to immediately pay such a very large amount.

It is noteworthy that all three entries on the tablet 8-300 are followed by vertical black lines.[257] That these lines were in fact marks related to the payment of fines is implied by another published list of officials' fines from Liye.[258] The tablet survived partially, and the date of the document is unknown. It lists sixteen officials sentenced to fines ranging from one shield (384 coins) to seven suits of armor (9,408 coins), one official sentenced to a redemption fee (*shu* 贖) for a sentence of exile,[259] and ten frontier servicemen (*shu* 戍), five of whom were sentenced to fines and another five to redemption fees. The total monetary amount of officials' fines should have been 43,776 coins (30 suits of armor + 9 shields). The following table summarizes the data.

Table 4.3: Fines for officials in Qianling County

Official	Amount of fine	Amount in coin	Labor days	Special marks
Assistant to the Controller of Works	2 suits of armor	2,688	336	Hook mark

[255] While the size and the means of payment of the official salaries in Qin remains unclear, in the late Western Han empire district bailiffs qualified as "petty officials" (*xiao li* 小吏) with a salary grade lower than 100 *shi* of grain per year. See *Hanshu*, 19A.742.

[256] For the prices of 4,300 coins for an adult male slave and 2,500 coins for a child in Erchun District in 216 BCE, see *Liye Qin jiandu*, vol. 1, 306-307, 8-1287.

[257] *Liye Qin jian*, vol. 1, 56.

[258] *Liye Qin jian*, vol. 1, 35, fragment 8-149; 73, fragment 8-489; *Liye Qin jiandu*, vol. 1, 89-91, tablet 8-149+8-489.

[259] The Qin statute "On the Controller of Works" excavated at Shuihudi stipulates that the punishment of exile (*qian* 遷) could be redeemed through the payment of eight coins per day of exile. See *Shuihudi*, 54-55, slips 151-152; Hulsewé, *Remnants*, 73.

Provisional Controller of Works	3 suits of armor	4,032	504	Vertical line
Provisional Controller of Works	3 suits of armor	4,032	504	Vertical line
Assistant to the Controller of Works	2 suits of armor	2,688	336	“By means of” 以
	1 shield	384	48	“Entered” 入
Bailiff of the Arsenal	2 suits of armor	2,688	336	Vertical line
Assistant to the Bailiff of the Arsenal	2 suits of armor	2,688	336	Vertical line
Assistant to the Office of Fields	2 suits of armor	2,688	336	Vertical line
Lieutenant of spearmen	Redemption from exile	?		Vertical line
Lieutenant of a guard post	2 suits of armor	2,688	336	“Entered” 入 upside down
Lieutenant of crossbowmen	2 suits of armor	2,688	336	Vertical line
Assistant to the Bailiff of Granaries	7 shields	2,688	336	Vertical line?
Assistant to the Office of Fields	1 suit of armor	1,344	168	Vertical line?

Assistant to the Magistrate	1 shield	384	48	Vertical line
Assistant to the Magistrate	7 suits of armor	9,408	1,176	Vertical line
Assistant to the Magistrate	2 suits of armor	2,688	336	"Already benefited" 已利

Each entry in the list of fined officials is followed by a special mark.[260] It two cases, this mark is a graph *ru* 入 ("to enter, entered"). In the official Qin documents this term is often used to record the receipt of a sum of money or physical objects. It can be reasonably assumed that in the list of debtor officials on the tablet 8-149+8-489 this mark signifies the payment of a fine in cash, as it does in the report on the payment of fines quoted in the beginning of this subsection. If this interpretation is correct, only two officials of sixteen actually paid their fines. It is also noteworthy that the list contains the names of two men who occupied the same office, that of provisional Controller of Works (*sikong shou* 司空守), suggesting at least one of them was holding this position some time before the fine list was drafted, so that his successor not only had time to start carrying our his official responsibilities but also to commit offences resulting in a fine.

These observations suggest that the vertical line mark, which follows the majority of entries on the tablet 8-149+8-489 and all entries on the tablet 8-300 records some different form of fine settlement than the immediate payment in cash. I suggest that the majority of penalized officials, most of whom were holding relatively low posts in the local administration, had no means to pay

[260] It should be noticed that no such marks follow the entries on the fined frontier servicemen on the same tablet.

fines that probably often exceeded their annual income. The options for them would have been to either reassign these fines to their households, which then would be held liable for payment, or to work off the amounts of fine as debtor laborers.

The former of these options was attempted by a certain Ting 亭, an assistant to the Qianling county Treasurer, himself from Bodao 僰道 March in Shu Commandery (in modern Sichuan Province, some 550 km west of Qianling as the crow flies). During the period of his service in Qianling, Ting incurred a fine of three suits of armor (4,032 cash). This, he alleged, could be paid by his wife back in Bodao, so the Qianling treasurer issued a 'control tally' and sent it to Bodao, thereby authorizing Bodao authorities to collect the respective amount from Ting's household on behalf of Qianling. It turned out, however, that the household was unable to pay the amount, as explicitly stated by Ting's wife Xuwang 胥亡: "[We are] destitute and cannot pay" (*pin fu neng ru* 貧弗能入).[261] Obviously, Ting was trying to evade the fine, perhaps in the hopes that his case would be lost in the mess of official communication.[262] To discourage such behavior and offset transaction expenses, the Qin law instituted a fine of one suit of armor (1,344 coins) for debtors for reassigning payment responsibility to their households in case these households were found insolvent.[263] This punishment eventually befell Ting, who was sentenced for deceiving the officials (*man* 謾). While the Liye document does not record his further fate, it can be safely

[261] *Liye Qin jiandu*, vol. 1, 43-46, tablet 8-60+8-656+8-665+8-748.

[262] One can also speculate that Ting hoped that the term of his service at Qianling would expire before the correspondence between Qianling and Bodao is completed, and he would be allowed to return home rather than being detained at his place of service to work off the fine.

[263] The Qin "Statute on the Controller of Works" from the Yuelu Academy collection stipulated: "When [the fine, redemption fee, or debt] is transferred [for payment] to the county of [debtor's] residence, but the family is unable to pay it, and [the debt] is 'returned', charge the fine of one suit of armor". See *Yuelu shuyuan cang Qin jian*, vol. 4, 154, slip 261 (J57).

assumed that Ting ended up working off his fine, plus the amount of additional penalty, at Qianling County.

We do not know how many of the fined officials on the Liye lists ended up staying in Qianling for longer terms to work off their fines. The very large amounts of fines in proportion to officials' salaries as well as the distinction between the marks in the fine lists that reflected payment in cash as opposed to some other form of settlement (vertical line mark) both suggest that the majority of sentenced officials were working off their fines in the same way as other debtors. If this was indeed the case, imposing debts on its functionaries would have been a means to ameliorate the shortage of personnel experienced by the Qianling government according to an undated "Record on Qianling officials" (*Qianling li zhi* 遷陵吏志), which reflects an understaffed administration with only 86 of 103 positions filled and only 51 officials actually available in their offices, while 35 were mobilized for labor services (*yao* 徭).[264] A similar situation is reflected in another, also undated document that records 50 officials present and 35 lacking (*que* 缺) out of the total number of 104 officials, the remainder temporarily performing labor services.[265] Complaint about the shortage of officials in different offices, sometimes severe enough to render the whole office unable to perform its functions, are not unusual in the Liye texts.[266] Retaining not only general labor, but also qualified administrative personnel at the frontier should have been a priority

[264] *Liye Qin jiandu*, vol. 2, 167-168, tablet 9-633.

[265] *Liye Qin jiandu*, vol. 1, 282, tablet 8-1137.

[266] See, for example, *Liye Qin jiandu*, vol. 1, 108-109, tablet 8-197; 279, tablet 8-1118 (for prisons); 366, tablet 8-1593 (for the County Treasury). The first of this documents, issued by the provisional Vice-Magistrate of Qianling and reflecting the situation in the entire county, states: "Resident officials are [so] few that [their number] is insufficient for the work to be done" 居吏少不足以給事.

for the Qin government, and this was probably achieved through the legal construction of temporary unfree labor arrangements on the basis of debtor labor scheme.

Apart from the officials with their scribal, accounting, and administrative skills, another group of "skilled" personnel included frontier servicemen (*shu* 戍). The terms of frontier service varied from shifts of duty (*geng* 更), ranging from one month to several months, to long-term service (*rong* 冗), to fixed-term penal service assigned for some crimes, especially those committed by state officials and military officers.[267] Some of these servicemen were dispatched to the frontier to work off their debts.[268] However, even those of them who were initially dispatched to serve relatively short shifts of duty were not guaranteed against staying for longer periods. Along with sixteen officials, the Liye list of fines bears the names of ten frontier recruits serving in terms of duty (*geng shu* 更戍), five of whom were sentenced to fines of two suits of armor (2,688 coins) and five to redemption fees in substitution of the punishment of shaving and conversion to bondservant status (*shu nai* 贖耐). According to the Qin texts from the Yuelu Academy collection, this fee amounted to four suits of horse armor (*ma jia* 馬甲), or 1,680 coins.[269] In contrast to the entries on officials' fines, each of which is followed by a special mark, none of the entries on frontier servicemen is accompanied by any such mark.[270]

[267] For the types of frontier service, see Shen Gang, "Liye Qin jian suojian shuyi bianxi," 93-103.

[268] Miyake, "Qin guo zhanyi shi," 164-165.

[269] Yu Zhenbo 于振波, "Qin lü zhong de jiadun bijia ji xiangguan wenti" 秦律中的甲盾比價及相關問題 [The monetary equivalency of suits or armor and shields in the Qin law and some related questions], *Shixue jikan* 史學季刊 5 (2010): 36-38.

[270] See *Liye Qin jian*, vol. 1, 35, fragment 8-149.

Does this mean that frontier servicemen did not have a choice of options for settling these fines? If this was indeed the case, it is very likely that they were required to work off the respective amounts: 2,688 coins = 336 labor days, 1,680 coins = 210 days at the fixed rate of 8 coins per day, provided they were not receiving clothes from the government, in which case the rate was reduced to 6 coins per day. As the result, they were joining the cohort of debtor servicemen working off their fines and redemption fees (*zi shu* 貲戍, "fined servicemen", and probably also some of the *fa shu* 罰戍, "penalized/fined servicemen").[271] That the latter group enjoyed a strong presence in Qianling County is evident from numerous mentions of "fined servicemen" in the Liye documents.[272]

Among the frontier servicemen, the Qin official documents singled out "officials serving at the frontier as soldiers" (*li yi zu shu* 吏以卒戍).[273] Legal texts suggest this was a form of punishment for officials.[274] By differentiating them from other soldiers, the government probably meant to recognize administrative skills and/or leadership experience that made these officials valuable. A document from the Qianling archive that deals with this specific group of unfree laborers provides some additional details concerning the implementation of the debtor labor regime in Qin[275]:

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[271] For the *zi shu*, see *Shuihudi*, 82-83, slips 11-15. For the conclusion that this group of servicemen probably consisted of individuals working of fines and redemption fees, see Shen Gang, "Liye Qin jian suojian shuyi bianxi," 98. Miyake believes that another group of frontier servicemen, the *fa shu*, also included people working off their monetary penalties, see Miyake, "Qin guo zhanyi shi," 164.

[272] See, for example, *Liye Qin jiandu*, vol. 1, 147, tablet 8-429; 218-219, tablet 8-761; 226, tablet 8-781+8-1102; 450-451, tablet 8-2246; vol. 2, 556, tablet 9-3173.

[273] *Liye Qin jiandu*, vol. 1, 276, tablet 8-1094; vol. 2, 166-167, tablet 9-630+9-815.

[274] See *Liye Qin jiandu*, vol. 1, 276, tablet 8-1094, n. 1.

[275] *Liye Qin jiandu*, vol. 2, 166-167, tablet 9-630+9-815.

卅一年後九月庚辰朔戊子，司空色爰書：吏以卒戍上造涪陵高橋　難有貲錢千三百卌四，貧不能入，以約居，積二百廿四日，食縣官，日除六錢（正）
☐得手（背）

Front side
Thirty-first year [of King Zheng, i.e., the First Emperor], the latter ninth month, *geng-chen* being the first day of the month, on the day *wu-zi* (November 2, 216 BCE), Se, the Controller of Works [of Qianling County, submits] the transcript of a statement: Nan, an official serving at the frontier as a soldier, [the holder of the social rank of] *shangzao* (2nd), from Gaoqiao [Village], Fuling [County][276], has a fine of 1,344 coins. [He is] destitute and unable to pay. According to the agreement, he works off [the debt] altogether for 224 days. He is fed by the county government and works off 6 coins per day.

Back side
…drafted by De.

Nan's conditions match what we already know about the Qin system of debtor labor: the amount of 1,344 coins corresponds to one suit of armor, a standard denomination of fines in Qin; the debtor worked off 8 cash per day, from which two cash were deducted when they received grain rations from the government. It is unclear if the fine Nan had to pay was incurred before his arrival in Qianling from the place of his official service or if he committed a new offence after having moved to the southern frontier. In any event, as many of his fellow officials, he was unable to settle the fine in cash and had to enter an "agreement" (*yue* 約) to work off the amount owed to the government. Such agreements were not mentioned in other documents related to the debtor labor that have been so far discussed or quoted in this chapter. In contrast to the "control tallies"

[276] During the Western Han period, Fuling 涪陵 County was located in the south-east of Ba 巴 Commandery in present-day Chongqing Municipality, see *Zhongguo lishi dituji*, vol. 2, 29-30. In all likelihood, this county already existed under the Qin Empire.

that effectively transferred the right and responsibility to claim the debtor labor from one county to another, "agreements" presupposed some degree of agency on both sides.

Unfortunately, at present we do not have more details of these quasi-contractual arrangements and can only make guesses about their purposes. If these were official documents, they would have provided debtors with some protection against the attempts by the local authorities to exploit their labor beyond the legally defined limit. This would be in line with the Qin practices of monitoring official behavior, which have been discussed in Chapter 2. Such "agreements" might also have had ramifications for the development of labor market practices, the subject that we are turning to in the final section of this chapter.

That not only general labor but also administrative expertise was retained at the frontier by compulsory means reflects the characteristic Qin lack of differentiation between officials and commoner subjects, all of whom were in principle considered owing labor services to the state. Accordingly, the strategy of indebting was applied to direct both labor and "expertise" to the locations where they were of utmost value for the state but where they were also difficult to procure locally. It may be even speculated that the notorious severity of the Qin laws was intended not so much to terrorize conquered populations as to sustain penal indebtedness of various pools of subjects with their diverse skills, the goal also pursued through the government lending arrangements discussed earlier in this chapter. In the process, the Qin rulers manipulated the traditional regime of labor services such as rotational mobilization, which could be effectively transformed into continuous long-term service once the indebtedness to the state was legally imposed on the servicemen. While Qin legislators may have considered fine arrangements as non-detrimental to care-intensive tasks performed by the officials and other "expert" personnel, the

expansion of debtor labor probably contributed to the popular perception of the Qin labor regime as overly oppressive.

4. Institutional epilogue: command, market, and control over labor

In spite of the lack of any meaningful numerical estimates of the size of convict and other unfree populations in Qin, all available evidence suggests that the system of forced labor pervaded the society and exerted a strong impact on its economic life as well as on the functioning of the Qin state.[277] Many communities included members of convict groups, and the Qin subjects routinely interacted with hired hands, commercial agents, or government functionaries of convict status. This epilogue summarizes some important characteristics of the unfree labor regime in Qin and briefly addresses its afterlife. It highlights the relationship between the unfree labor system, on the one hand, and, on the other, the institutional background of the Qin state and the political discourse of the Warring States and early imperial eras. Then I discuss the development of the ideas and practices of measurability, fungibility, and marketability of labor within the framework of the command economy of unfree labor. The section concludes with a brief outline of its fate after the fall of the Qin Empire. I argue that changing forms of state control over labor and mobilization of manpower had an enormous impact not only on the social structure and economy of Chinese empires but also on the ways these empires engaged with the world.

[277] Neither is such data available for the latter period. For the Han period, the guesstimates concerning the size of slave population vary wildly between 1 and 50%, with Martin Wilbur's figure of around 1% having been the most popular in spite of its shaky foundations. For a recent discussion of the problematic nature of the available numbers, see Scheidel, "Slavery and Forced Labor," 137-138.

4.1. The unfree labor system between economy and politics

In his study of amnesties in imperial China, Brian McKnight explains the high frequency of amnesties in the Han Empire by the need to reduce resistance to the institutions of penal labor and offer convicts some positive incentives: "Thousands of convicts, set apart from the general population by their iron collars, their distinctive clothes, and their shaved beards, were always a threat – if they felt they had little to lose. But to give such men hope was to free them from desperation. A convict who knows that an amnesty will come soon, perhaps in a matter of months, at most in a few years, faces his choices very differently from a man who, set apart from the people, confronts only a future of grinding labor."[278] Amnesties granted to "absconders" who fled the disasters of a decade-long civil war in the wake of First Emperor's death in 210 BCE were instrumental in returning people to the land and to taxpayer registers, so the Han founding emperor Gao announced no less than nine general amnesties (*da she* 大赦) in the course of his ten-year-long rule. The frequency of amnesties somewhat reduced under his successors: four during the sixteen years of Empress Lü's regency (195–180 BCE), another four under Emperor Wen (180–157 BCE). Still, general amnesties were conducted every 4 to 5 years, picking up to once every three years under Emperor Wu (141–87 BCE). By the end of the Western Han period they became almost an annual matter.[279]

We know much less about the Qin amnesties, partly due to the poorer conditions of source base. Even so, it appears that in the Warring States and imperial Qin amnesties were much less frequent than under the Han. When announced, they were often intended to provide settlers for colonizing newly conquered regions rather than releasing the entire convict population at once.

[278] McKnight, *The Quality of Mercy*, 26-27.

[279] McKnight, *The Quality of Mercy*, 24.

Effectively, these people remained available for the state use even after the amnesty, although their social status improved. The Second Emperor (210–207 BCE) announced the first and only recorded general amnesty in the Qin Empire in 208 BCE in a desperate effort to raise an army of pardoned criminals to the rescue of empire that was crumbling in the midst of massive rebellion.[280] The Qin rulers were less disposed than their Han successors to regularly ridding their state of the unfree labor force.

McKnight's image of convicts waging a grim life of grinding labor reflects the conditions of unfree workers at major construction projects such as the First Emperor's mausoleum or that of the Han Emperor Jing (157–141 BCE) that left behind massive convict cemeteries.[281] These workers were engaged in effort-intensive tasks associated with monotonous hard labor and intensive coercion, which resulted in high attrition rates. The perspective of an approaching amnesty was the only means to secure minimal positive incentive for compliance and a deterrent to revolts of despair.[282]

This chapter demonstrated that overworked, starving convicts represented just a part of the unfree labor force in the state of Qin. The Qin rulers and lawgivers were just as aware of the importance of positive incentivizing and of the high costs of coercion as the Han amnesty-givers. The convict economy was more complex than onerous construction projects highlighted by

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[280] *Shiji*, 6.270.

[281] Shihuang ling Qin yongkeng kaogu fajuedui, "Qin Shihuang ling xice," 1-11; Qin Zhonghang 秦中行, "Han Yangling fujin qiantu mu de fajue" 漢陽陵附近鉗徒墓的發掘 [Excavation of the tombs of shackled convicts near Han Yangling], *Wenwu* 7 (1972): 51-53. For the Eastern Han convict cemetery near Luoyang, see Zhongguo shehui kexueyuan kaogu yanjiusuo Luoyang gongzuodui 中國社會科學院考古研究所洛陽工作隊, "Dong Han Luoyang cheng nanjiao de xingtu mudi" 東漢洛陽城南郊的刑徒墓地 [Convict cemetery at the southern suburb of Eastern Han Luoyang], *Kaogu* 4 (1972): 2-19.

[282] To illustrate the power of this positive incentivizing, Anthony Barbieri-Low quotes a short inscription on a pot shard excavated from a convict-operated Han iron-making facility in Henan and bearing the word "general amnesty" (*da she* 大赦). See Barbieri-Low, *Artisans*, 237.

transmitted writings and archaeology. The only available detailed account of convict labor in Qin, provided by the Qianling archive, suggests that the majority of convicts were employed at small-scale, short-term tasks. Considerable groups of convicts performed care-intensive tasks such as supervision and administrative assistantship, which favored positive incentivizing. Far from being "set apart from the general population," the convict society was interacting with commoner subjects in a variety of ways, with some convicts allowed full participation in the communities. Legal conditions of some convict groups who were not allowed to hold agricultural land directed their members to specific economic niches, such as artisanship and trading. These convicts could accumulate assets and were sought-after agents in commercial enterprises, not unlike the socially inferior but economically active groups in other ancient societies.[283]

The legal foundations of the unfree labor system in the state of Qin developed in the course of legal reforms in the mid-fourth century BCE, which coincided with the initiation of conquest campaigns outside the Wei River basin. The linkage between the forced labor and empire building have been long emphasized in comparative scholarship on the early states.[284] The Qin example suggests that the unfree labor was particularly important as an instrument of expansion and control at the frontiers where compulsion was instrumental in procuring manpower for populating, developing, safeguarding, and administering new territorial acquisitions. Two institutional factors explored in Chapter 2 exacerbated the importance of direct command over manpower in the frontier environment. First, the Qin fiscal system was geared to intensive exploitation of tightly

[283] Comparison with metics in classical Athens may be instructive. Metics were denied land ownership and political participation in the community of citizens and engaged in artisanship and commercial enterprises as agents of wealthy citizens or in their own right. Some of them could accumulate enormous wealth. See, for example, James Watson, "The Origin of Metic Status in Athens," *The Cambridge Classical Journal* 56 (2010): 259-278.

[284] For an extensive discussion with numerous references to specialized and comparative scholarship, see Scott, *The Art of Not Being Governed*, 1-39; and Scott, *Against the Grain*, 150-182.

controlled but spatially limited agricultural colonies on conquered lands. Local inhabitants were not immediately incorporated into the taxation base, as reflected by the very low numbers of registered population in Qianling County. Compulsory or semi-compulsory labor of convicts, debtors, amnestied criminals, etc., was essential for financial sustainability of newly established commanderies. Second, late monetization of the Qin economy and local governments' constrained access to monetary liquidity hindered market mechanisms of labor mobilization.

The unfree labor system in Qin was as much an economic solution to the problem of resource allocation in the rapidly expanding state as it was a political strategy of monopolizing control over dependent labor and reducing alternative forms of private dependency, in particular debt bondage. The political discourse of the Warring States and early imperial eras emphasized the connection between the claim to other people's labor and that to their political allegiance, and the Qin and early Western Han law militated against debt pawning and extraction of household members as pledges.[285] While recognizing private slavery, the state claimed for itself the role of the distributor of labor resources through the exclusive access to the pool of convict laborers who could be assigned to private users. While such distributions often took the form of sales, these sales were not irreversible transfers of ownership as the government maintained the right to redeem convicts sold to private individuals when it deemed necessary. The notion of state sovereignty over unfree manpower, anchored to its control over the source of forced labor, was enshrined in the paradigm of convict labor as the origin of all forms of private dependency, as reflected in the classical texts. This, of course, was not an accurate reflection of reality where many private slaves were hereditary and where slaves were bought and sold among private individuals.

[285] For a discussion of these legal regulations and of the discourse on political ramifications of private debt relations, see Korolkov, "Between Command and Market."

The institutional and political contexts of the unfree labor system in the early Chinese empires help to explain its robustness in the face of formidable operational challenges determined by transaction costs. A cache of debt-reckoning documents in the Qianling archive reveals that establishing the whereabouts of debtors and transferring debt-collecting responsibility from one county to another could take more than two years of written communication and involved a number of officials, clerks, and runners, all of whom received their grain rations and some probably also monetary remuneration.[286] It may be questioned how much the value recovered by the state by making the debtors work off the owed amounts offset transaction expenses. In fact, it is unclear whether these debtors were ever made to work off their obligations at all.[287]

Concerns about operational costs were clearly at the heart of many unfree labor institutions in Qin. Numerous convicts were employed on a part-time basis so that the government supplied them only during the periods of service. For the rest of the time, they had to count on the resources of their households to make a living, be that agricultural land, commercial assets, or labor. These convicts were assigned a broad array of both effort-intensive and care-intensive tasks, to the effect of diversifying labor incentives and reducing monitoring expenses. As employers of an unfree labor force, local governments could often decide on the preferable way of exploitation, either through direct command of manpower or through making their subordinates engage in private economic activities and pay monetary fees to the state. Legalized in imperial Qin law, this

[286] One document from this cache explicitly instructs Qianling officials not to engage in any further communication with the debtor, which would necessarily result in more written correspondence between the two counties involved. The text also explicates the rationale for such instruction: the two counties were too far away from each other. Communication costs were already becoming a concern at this early stage of negotiation between the Qianling and Yangling authorities. Little did the latter know that their plea would still remain unresolved after two years. See *Liye Qin jiandu*, vol. 2, 11-14, tablet 9-3.

[287] Partial preservation of the Qianling archive means we often do not know the practical outcomes of official communication.

mechanism of substituting cash payments for labor obligations was just one of many market-oriented developments sprouting within the command economy of forced labor.

4.2. Commodification of labor in the Qin command economy

In his essay on the social life of Chinese migrant labor in the 19th century, Adam McKeown identifies two conceptual anchors for thinking about labor as a commodity: slavery, where the body of a slave is "treated as property, and subject to sale and exchange like any other thing"; and wage labor belonging to the realm of goods and services, subject to the laws of supply and demand, and disposed of by an individual like any other good.[288] The role of command economy institutions in the formation of ideological and normative infrastructures for the labor market problematizes the notion of commodification embedded in the structures of market economy and commodity trade.

The notion of measurability was central to Marx's labor theory of value as it allowed him to distinguish between the use and exchange values characteristic of pre-capitalist and capitalist societies, respectively. Already present in Ricardo's refinement of Adam Smith's theory of value, the concept of "units of labor time" was further elaborated in Marx's notion of "abstract labor" measured in quantitative terms of "temporal duration of labor time."[289] The quantitative measure of labor provides a means to equate qualitatively different kinds of labor in the same way as the exchange value of goods allows the equation of a quantity amount of one commodity with a

[288] Adam McKeown, "The Social Life of Chinese Labor," in Eric Tagliacozzo and Wen-Chin Chang, eds., *Chinese Circulations: Capital, Commodities, and Networks in Southeast Asia* (Durham and London: Duke University Press, 2011), 63-65.

[289] Karl Marx, *Capital: A Critique of Political Economy* (Middlesex: Penguin, 1976), vol. 1, 136.

specific amount of another commodity.[290] In Marxian analysis, wages were the ultimate expression of the exchange value of labor power as a commodity.[291] This conclusion was based on Marx's belief that production in pre-capitalist economies was always predominantly for use, that the dominant form of value was therefore use value, and that this situation changed only after the advent of capitalism and the emergence of wage labor as a dominant form of labor.[292]

The latter conviction has been subject to revision by economic historians. The concept of labor commodification in its original version had to do not so much with the modes of production, nor with any other organizational form or principle of the economy, but rather with the ways of thinking about labor and its value. These, in turn, could be defined by various kinds of social, economic and political settings not necessarily reducible to a capitalist factory or a slave market.

While all major polities of the Warring States world dramatically upgraded their mobilizing and organizational capacity, the achievements of Qin were particularly spectacular. Construction of major hydraulic works, transportation routes, fortification lines and storage and administrative facilities throughout the empire called for a careful budgeting of labor. Measuring labor was at the core of the process, and productivity norms (*cheng* 程) were applied to estimate the duration of a project, as specified in the Qin "Statute on labor services" (*yaolü* 徭律) from Shuihudi:[293]

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[290] Marx, *Capital*, vol. 1, 128.

[291] Marx, "Wage Labor and Capital," in Robert Tucker, ed., *The Marx-Engels Reader*, Second Edition (New York and London: W.W. Norton & Company, 1978), 204-217.

[292] Ken Morrison, *Marx, Durkheim, Weber: Formations of Modern Social Thought,* Second Edition (Los Angeles and London: Sage, 2006), 84-87.

[293] *Shuihudi*, 47, slips 122-124; translation follows Hulsewé, *Remnants*, 64, A64, with some minor modifications. Italicization is mine. Robin D.S. Yates has recently translated and analyzed several short fragments of documents from the Qianling county archive that mention the norms (or standards) *cheng* 程. Yates argues that "Qin standards were a subordinate form of legislation and were subject to regulations as promulgated in an ordinance," see Yates, "Evidence for Qin Law in the Qianling County Archive," 417-420.

縣為恒事及  有為毆（也），吏程攻（功），贏員及減員自二日以上，為不察。上之所興，其程攻（功）而不當者，如縣然。度攻（功）必令司空與匠度之，毋獨令匠。其不審，以律論度者，而以其實為繇（徭）徒計。

When the county undertakes routine work as well when it has requested [permission] to undertake work, the officials *apply the norms to the work.* In case [the estimate proves to be wrong and leads to] an excess of the [labor] force, or a shortage, *of two days or more*, this is considered as "lack of investigation". When for levies raised by superiors *the application of the norms to the work* is incorrect, [punitive measures] are like those for the county. When *estimating the work*, it is imperative to have the Controller of Works estimate it together with the Supervisor of Artisanal Works; one must not only order the Supervisor of Artisanal Works [to estimate it]. In case of carelessness the persons who made the estimate are to be sentenced according to the Statutes, whereas the actual amount [of required work] is to be accounted as statute labor for conscripts.

The fragments of another Qin statute specify some of the norms applied to various categories of laborers employed by the government.[294] An accurate time estimate of a project was essential for allocating adequate amounts of resources, first of all, grain rations for participating laborers. Another important consideration was the socio-legal status of the labor force, as specified in the circular issued by the governor of Dongting Commandery in 219 BCE. It refers to the imperial ordinance to instruct subordinates on the order of mobilization for various categories of laborers.[295] The economic reasoning behind this document reveals an awareness of graded, quantifiable interest payable for the use of labor as a scarce resource.[296] Qin officials and lawgivers clearly realized that the labor of the vast majority of their subjects was claimed by two competing

[294] *Shuihudi*, 45-46, slips 108-110.

[295] *Liye Qin jiandu*, vol. 2, 447-452, tablet 9-2283.

[296] "Interest" is usually defined as the cost associated with the use of funds for a designated time period, see, for example, Richard Sylla, "Interest Rates," in *The Oxford Encyclopedia of Economic History*, ed. Joel Mokyr (Oxford: Oxford University Press, 2003), 113-116. Here I apply the word as a generic term for the cost of the use of a factor of production without further differentiation regarding the purpose of payment (employment of labor, use of land or use of capital) and dissociated from the fact of actual payment.

tasks indispensable for the survival of the state: first, grain production, and, second, projection of state power through deployment of the workforce in military, construction and maintenance projects.

The costliest category of labor was that of commoners who had to be distracted from their production tasks, which resulted in the disruption of agricultural economy. Levying farmers could be particularly ruinous during the agricultural seasons, which was usually taken into account by the government planners and concerned imperial authorities to the extent that they issued a special ordinance (*ling* 令) to address the issue.

The problem was that some of the tasks that called for labor mobilization were poorly aligned with the agricultural calendar. Military emergencies are one example. It is unclear whether the transportation of armor and weapons addressed in the 219 BCE circular related to such an emergency, but delaying the task until the slack season was not considered an option. Instead, local officials were advised to utilize manpower other than conscripted farmers. The ordinance mentions convicts and debtors working off their obligations as alternatives, and the Dongting Governor's exhortation adds other categories of laborers to the list. Let us apply the proposed notion of interest payable for the use of labor as a scarce resource to explore the logic of the numerical assessment of labor value in the Qin law and administration.

At the bottom of the social hierarchy, the convict labor commanded minimal premium. Convicts were provided a mere subsistence, with rations categorized according to their age, gender, and hardship of labor assignments.[297] The monetary value of a daily ration of an adult male was fixed at two coins a day. One step up the hierarchy, government debtors were working for eight coins a day, with two coins representing subsistence value deduced for those who received grain

[297] *Shuihudi*, 32-34, slips 49-56.

rations from the government. Their labor therefore was available to the state at the interest four times that of convict criminals. (Note that the actual payment occurred in neither of these cases.) The interest on the use of conscripted labor was not assessed directly in available legal fragments as in the case of convicts and debtors. One possible though admittedly rough proxy is an amount paid to substitute laborers, for which estimates vary between 10 and over 66 coins a day during the Western Han period.[298]

The amount of interest was, therefore, inversely related to the strength of the state's claim on an individual's labor, which was a function of the degree of an individual's indebtedness to the state. Hard-labor convicts who owed their very life were accordingly treated as expendables whose labor could be used at the price of bare subsistence. The bureaucratic techniques of mensuration and standardization designed to facilitate the assignment of resources and control over the performance of the command economy of construction and war concealed the work of the moral economy that applied violence to translate the legally constructed state of culpability into the right to an exclusive access to a person's labor.

The "rational" bureaucratic calculus of the Qin command economy effectively reproduced the work of the ritual economy of human "sacrificial capital" expended in lavish ancestral rituals in service of world order and community-preserving "sacrificial domestication of uncertainty and danger" in the Bronze Age state of Shang that flourished some thousand years prior to the

[298] The first figure comes from Fu Qian's comment to the *Hanshu* biography of Pi 濞, King of Wu 吳 (d. 154 BCE) (*Hanshu*, 35.1905), while the second is provided in Ru Chun's comment to the annals of Emperor Zhao 昭帝 (reigned 86-74 BCE) (*Hanshu*, 7.230). The lower figure is supported by the evidence on wages in the Han arithmetic manual *Jiuzhang suanshu* 九章算術 (Art of Calculation in Nine Chapters). See Li Konghuai 李孔懷, "Shangpin jiage" 商品價格 [Commodity Prices], in Lin Ganquan, ed., *Zhongguo jingji tongshi: Qin Han jingji juan*, vol. 2, 581. These estimates have limited usefulness for the earlier period as the monetary system underwent considerable changes during the early years of the Western Han.

emergence of the centralized Chinese empire.[299] Both systems applied numerical equations to manipulate the value of human life to redefine people as a "resource" that could then be utilized in the construction of new landscapes of political authority.[300]

The dirigiste social economy of debt and labor had its tradeoffs and limitations. To gain support for the state-sanctioned hierarchy of legal statuses, Qin lawgivers exempted the holders of meritorious ranks (*jue*) and the members of their households from some labor obligations in recognition of the state's "indebtedness" to them on the strength of their merits. Even more importantly, the state had to recognize the benchmark autonomy of its farmer subjects defined by the demands of agricultural production. This autonomy itself was conceptualized as a part of universalist imperial constitutions where commoner subjects were woven into the social texture of empire through their membership in productive, tax-paying households, mutual responsibility units and communities that maintained public order, political compliance and administration at the grass-roots level. However, ideology aside, the economic reality the Qin bureaucrats had to face was that the interest on the access to people's labor appreciated as they owed the state much less than their life. Government debtors fitted somewhere in between the commoners and the convicts, which was reflected in their middling position in the value hierarchy of labor pools.

The command-economy practice of assigning fixed (originally grain, later coin) value to labor to facilitate planning and allocation of resources contributed to the commodification of social status, which came to be considered as a balance of payment between the state and its subjects,

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[299] On the transformation and continuity of collective violence practices in ancient China, see Roderick Campbell, "Transformation of Violence: On Humanity and Inhumanity in Early China," in *Violence and Civilization: Studies of Social Violence in History and Prehistory*, ed. Roderick Campbell (Oxford and Oakville: Oxbow Books, 2014), 94-118.

[300] On the importance of the spatial dimension of political action for creating and reproducing authority relations in human collectives, see Adam Smith, *The Political Landscape: Constellations of Authority in Early Complex Polities* (Berkeley: University of California Press, 2003), 107.

with labor and social ranks used to settle the balance.[301] The combination of social (and existential) hierarchy with the moral economy of debt and sanctioned violence was nothing new,[302] but the quantitative expression of the state's claim on individuals' labor for the first time provided a conceptual framework for thinking about personal obligation in terms of objectified market interest defined by the scarcity of labor resources, particularly astute under conditions of imperial expansion, on the one hand, and the government's legal claim on privileged access, on the other.

As the major employers of labor, the activist states of the late Warring States period applied newly established uniform numerical valuations of labor time to extend their access to labor resources. As discussed in this chapter, Qin law effectively depersonalized labor obligations that could be performed not necessarily by an individual owing labor to the state but by anyone able and willing (or forced) to provide labor of equal, officially established value, including slaves and even cattle. Even more importantly, the monetary valuation of labor time opened way for the practice of cash payments in substitution of labor duties, which allowed utilizing markets to reduce the operational costs of the unfree labor system. Qin lawgivers and administrators not only quantified the relative economic and social costs of access to various pools of labor to plan their projects accordingly, but also made steps to increase the flexibility of labor supply. Local

[301] As argued above, social ranks (*jue*) can be considered a token of state's indebtedness to private individuals. As such they were used as a kind of special purpose currency that could be used to redeem some minor criminal punishments and to settle monetary debts to the government, particularly those incurred as fines or redemption fees. For the use of social ranks for this purpose in the Qin Empire, see *Yuelu shuyuan cang Qin jian*, vol. 5, 113-114, slips 138-140. According to this legal regulation, the monetary value of a rank was defined as 10,000 coins – the amount of fine or redemption payment that could be settled by "returning" one level of social rank. At the beginning of the Western Han, the same amount of money could be claimed by individuals whose merits entitled them to a social rank but who for various reasons could not be awarded such. This practice was likely inherited from the Qin. See *Ernian lüling yu Zouyanshu*, 151, slips 150-151; 242, slip 393; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 564-565, 878-879.

[302] Campbell, "Transformation of Violence," 101; David Graeber, *Debt: The First 5,000 Years* (Brooklyn and London: Melville, 2012).

governments were allowed to lease convicts in their custody to private individuals.[303] When extra labor force was needed, the government purchased slaves from its subjects.[304] Debt labor could be commuted to cash payments in installments should the debtor request for such an arrangement.[305]

Abuse of the new economic practices is attested by the following legal case from the Qianling county archive:[306]

> 廿六年八月丙子，遷陵拔、守丞敦狐詣訊般芻等，辝（辭）各如前。（正）
>
> 鞫之：成吏、閒、起贅、平私令般芻、嘉出庸（傭），賈（價）三百，受米一石，臧（贓）直（值）百卅，得。成吏亡，嘉死，審。（背）
>
> *Front side*
> Twenty-sixth year [of King Zheng, i.e., the First Emperor], in the eighth month, on the day *bing-zi* (September 17, 221 BCE). Ba, [the Magistrate] of Qianling [County], and Dunhu, the provisional Vice-Magistrate, interrogated Banchu and others, [their] testimony being as [recorded] previously.
>
> *Back side*
> Findings [of the facts of the case]: "Chengli, Jian, Qizhui and Ping privately ordered that Banchu and Jia be hired out as laborers at the price of three hundred [coins]. [The culprits] received one bushel of grain worth one hundred and forty [coins]. [The culprits] are arrested. Chengli absconded, Jia died. [These circumstances have been] investigated.

The wording of this document suggests that the four culprits involved in the case were local officials in charge of managing the labor force. As attested by the two cases dated from the Qin and early Western Han period, the word *si* 私 ("private, privately") was used in legal proceedings

[303] *Shuihudi*, 32, slip 48.

[304] *Liye Qin jiandu*, vol. 1, 306-307, tablet 8-1287; 367, tablet 8-1604.

[305] *Shuihudi*, 51, slip 138; *Yuelu shuyuan cang Qin jian*, vol. 4, 155, slip 264. In each case this was subject to approval by the local government, presumably based on its needs for labor and cash.

[306] *Liye Qin jiandu*, vol. 1, 385-386, tablet 8-1743+8-2015.

to denote privatization of offices and illegal profit-making by official functionaries.[307] The two persons hired out were probably some kind of dependent laborers such as convicts, conscripted commoners, debt-laborers or slaves.

Dating from 215 BCE, the four documents from the Peking University collection of Qin bamboo slips and wooden tablets acquired on the Hong Kong antiques market in 2010 record wages earned by some individuals of unspecified status.[308] Although none of these texts contains explicit references to an official context, the composition of the collection signifies that its owner was likely to be a local functionary in one of the southern commanderies.[309] One of the tablets reads:

以正月辛丑初作，六日，盡四月壬戌，十七日。
定作八十三日，日三錢大半錢。
爲錢三百一。
☐以四月庚午作，以五月戊寅去不作。（上欄）

· 正月得六日，爲錢廿二。
· 二月得一月，錢百一十。
· 三月得一月，錢百一十。
· 四月得十七日，錢六十二。
· 凡錢三百四，已（已）入二百五十三。（下欄）

Upper register
Work started on the day *xin-chou* in the first month, when [they worked] for six days, and lasted till the day *ren-xu* in the fourth month, when they worked for seventeen days. [Altogether, they] worked for a fixed period of eighty-three days, [earning] $3^{2}/_{3}$ coins per day.

[307] *Ernian lüling yu Zouyanshu*, 347-348, slips 54-57.

[308] For a brief account of these documents, see Beijing daxue chutu wenxian yanjiusuo, "Beijing daxue cang Qin jiandu gaishu," 69. For a transcription and study of the four texts, see Chen Kanli 陳侃理, "Beijing daxue cang Qindai yongzuo wenshu chushi" 北京大學藏秦代傭作文書初釋 [A preliminary interpretation of the documents on hired labor in the Peking University collection of Qin documents], *Chutu wenxian yanjiu* 14 (2015): 8-15.

[309] Beijing daxue chutu wenxian yanjiusuo, "Beijing daxue cang Qin jiandu gaishu," 65.

Earned 301 coins.[310]
[…] worked on the day *geng-wu* in the fourth month, left on the day *wu-yin* in the fifth month and did not work [any longer].

Lower register
• 6 days in the first month, earned 22 coins.
• One month in the second month, 110 coins.
• One month in the third month, 110 coins.
• 17 days in the fourth month, 62 coins.
• Total of 304 coins, of which 253 have already been paid.

Another tablet indicates that the wages were collected not by the workers themselves but by other individuals, which led the editors to the conclusion that the workforce involved consisted of dependent laborers.[311] Although neither the identity of the employer, employees, or their wage-collecting supervisors, nor the tasks performed are well-understood, the Peking University texts as well as the above-quoted Qianling document seem to be embedded in semi-official contexts reminiscent of the flexible, market-oriented approach to the management of labor resources in the Qin statutes (Chapter 6 discusses officials' involvement in private entrepreneurship in more detail). Developing at the margins of the unfree labor system and originally designed to reduce the maintenance costs of the labor force, the market for convict labor was increasingly becoming an arena for profit-oriented activities, with state officials acting as agents bringing supply to demand. Dramatic economic transformations in the wake of the collapse of the Qin Empire accelerated the change in the mode of government control over labor.

[310] The editor observes that the total amount of wages should read "304," not "301," which may be considered a scribal error, see Chen Kanli, "Beijing daxue cang Qindai yongzuo wenshu," 9.

[311] Chen Kanli, "Beijing daxue cang Qindai yongzuo wenshu," 12-13.

4.3. Toward a labor market: state control over labor after the collapse of Qin

In his recent comparative study of slavery and forced labor in Early China and the Roman World, economic historian Walter Scheidel pointed out the role of the state as key to the difference between the unfree labor regimes in the Mediterranean and East Asian empires. While the private slavery was typical for the former, the latter developed "an extensive gulag-like system of penal servitude" controlled and operated by the state.[312] This chapter, however, suggests that the pervasive state-organized system of unfree labor described by Scheidel was not a permanent feature of the economy of early Chinese empires. Rather, it was an outcome of a specific configuration of economic conditions and fiscal and administrative practices in the late Warring States Qin. It took shape in the process of territorial expansion and was part of the "physiocratic" extraction model outlined in the second chapter of this study. This system was already under severe stress by the end of the Warring States era. New policies and practices were developed to reduce the running costs of the unfree labor economy. Private markets played important role in this process, which accelerated after the fall of the Qin Empire.

In traditional historiography, Emperor Wen's momentous legal reforms – the abolition of impoundment laws and mutilating punishments and introduction of fixed-term labor sentences – were celebrated as an exemplar of humane rule. Modern scholars also recognize these reforms as one of the milestones in the legal and social history of early Chinese empires, but they point out that the emperor and his advisors were building upon long-term trends in the development of penal labor institutions that can be traced back to the Qin period. Fixed-term labor sentences, in particular, originated in the practices of debtor labor, which was limited by the time needed to work off the amounts owed to the government, and of the additional sentences passed to individuals who

[312] Scheidel, "Slavery and Forced Labor," 146.

committed crimes after having been already reduced to convict status.[313] Scholars also emphasize the linkage between the legal reforms, the abatement of government's demand for unfree labor, and the quest for reducing the costs of the state economy, of which the standing army of convicts was likely the most expensive part.[314]

Along with regular amnesties, the revision of the penal labor regime was a radical solution to the problem of maintenance costs with which the Qin government was already dealing. Among other measures, it instituted convict statuses whose bearers had means to support themselves when not employed by the state. Emperor Wen's reforms rendered these measures redundant, and the bondservant status gradually disappeared in their wake.[315] The strong Han-era criticism of the excessive use of forced labor and enormous numbers of convicts in the Qin conveys the impression that by mid-Han times the size of unfree labor forced reduced significantly from its Qin heights.

Retrenchment of production and distribution systems operated by the state, dramatic contraction of territories administered by the imperial government, temporary cessation of frontier expansion, and transition to fiscal policies that relied less on the direct control over human resources all contributed to the decline in demand for an unfree labor force. One of the major employers of large convict gangs, the county-level Offices of Fields, already started to decline under the Qin Empire and were stripped of all but purely ritual functions in course of the Western Han period.[316] State-managed livestock farms shared the same fate.[317] By mid-second century

[313] You Yifei, "Shuo "ji chengdan chong," 42-44.

[314] Miyake, "Laoyixing tixi," 147-151; You Yifei, "Shuo "ji chengdan chong," 43; Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 96.

[315] Sun Wenbo, "Qin ji Han chu de sikou yu tuli," 95.

[316] Yamada, *Shin Kan zaisei shūnyū*, 58.

[317] Commutation of household taxes in hay and straw to cash payments was already practiced in the Qin Empire and further expanded at the beginning of Western Han (see Chapter 2). Has and straw were used, among other things, as

BCE when the Han emperors were re-embarking on expansionist foreign policy, horse farms had to be rebuilt from scratch to raise mounts for the imperial army.[318]

Centralized administration contracted dramatically when almost two thirds of the imperial territory including almost all lands to the south of Yangzi River were surrendered to the supporters and relatives of the Han founder. For the next fifty years, they were governed as semi-autonomous principalities (*wangguo* 王國).[319] The demand for administrative assistants and runners, who were often recruited from among the convicts, reduced accordingly. Equally important, the transition to fixed-rate harvest tax regime, recognition of private land tenure, and gradual contraction of the state-managed land-distribution schemes contributed to the expansion of the taxation base, even though exploited less intensively than under the Warring States Qin fiscal regime. This effectively reduced the central government's dependence on direct command of labor to develop enclaves of intensified agricultural production.[320]

While the available lines of evidence point at considerable decline in the state demand for labor in the early decades of the Western Han, the expansion of the monetary economy during the same period encouraged market solutions to the problem of labor supply with which the Qin bureaucrats already experimented with. The collapse of the Qin dramatically decreased the central

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fodder for state-owned cattle and horses. Also note the difference in the legal treatment of trespassing on other people's land while grazing one's cattle. While the Qin statutes stipulated confiscation of livestock, an identical Han regulation required the payment of a monetary fine, suggesting that the state was no longer interested in increasing the size of its flocks. See *Longgang*, 107, slip 102; *Ernian lüling yu Zouyanshu*, 192-193, slips 253-254.

[318] *Hanshu*, 5.150.

[319] For a survey of the political organization of the early Western Han Empire, see Michael Loewe, "The Former Han Dynasty," in *The Cambridge History of China*, vol. 1, 103-152.

[320] After some experiments with fixed-rate harvest tax in the beginning of the Western Han period aimed at finding equilibrium between agricultural productivity and state demand for resources, the rate was fixed at 1/30 of the nominal average harvest in 156 BCE, see *Hanshu*, 24A.1135. For an analysis of the transition from the Qin to Han land taxation system, see, for example, Yang Zhenhong, "Qin Han shiqi de tianzu zhengshou," 119-141; Korolkov, "Fiscal Transitions in Early China".

government's productive capacity, including the ability to mint coin. Private coinage filled the gap and was legalized for much of the first century of Han rule, resulting in continuous devaluation of *banliang* coinage despite the government's many attempts to stabilize the weight of bronze money.[321] The result was a considerable expansion of the volume of coins in circulation, which allowed state rulers to increasingly monetize labor levies and taxes in kind.[322]

The market for labor and military service substitutes expanded accordingly. As the concept of labor as a quantifiable and tradable commodity took shape in Qin law, so the wage labor market during the Han era developed in close relationship with the state institutions of taxation and labor levies.[323] Still, it is useful to remember that state-driven demand was short of becoming the decisive factor in the growth of the labor market. Recent studies of wage dynamics indicate that the monetary reimbursement of substitute laborers remained relatively stable through most of the Han period, while general wages increased substantially, suggesting that the expansion of private employment was more important for stimulating the market than the commodification of statute labor.[324] The state's impact on the labor market consisted not only, and probably not so much, in fueling the demand for corvée substitutes as in the systematic suppression of directly dependent forms of labor, particularly debt bondage and private slavery, and in the provision of a conceptual

[321] *Hanshu*, 24B.1152-1157.

[322] Hsing I-tien [Xing Yitian], "Qin-Han Census and Tax and Corvée Administration: Notes on Newly Discovered Materials," in *Birth of an Empire*, 155-186, esp. 173.

[323] Watanabe, "Kandai kōsotsu seido no saikentō," 16-22; Shi Yang, "Liang Han Sanguo shiqi "yong" qunti de lishi yanbian – yi minjian guyong wei zhongxin" 兩漢三國時期"傭"群體的歷史演變——以民間雇傭為中心 [The historic transformation of the *yong* group during the Two Han and Three Kingdoms periods – With a focus on private employment], *Zhongguo shi yanjiu* 3 (2014): 51-77, esp. 54-57.

[324] Shi Yang, "Ryōkan yōka hensen kōshō" 両漢雇価変遷考証 [An analysis of wage dynamics during the two Han dynasties], *Tōyōshi kenkyū* 71.2 (2012): 1-28; Shi Yang, "Liang Han Sanguo shiqi 'yong' qunti de lishi yanbian," 51-77.

and institutional framework for construing labor power as a tradable commodity.[325] In other words, it was exerted through political and ideological rather than economic venues. Here I agree with Scheidel who emphasizes the difference in the political constitution of the Roman Republic and early Empire, on the one hand, and the late Warring States and early imperial China, on the other, as one of the key factors that determined the greater economic and social importance of private slavery in the Roman Mediterranean than in the Han Empire.[326]

While the unfree labor system never disappeared entirely, and convicts continued to perform many onerous and dangerous tasks, especially in construction and mining,[327] the contrast in the modes of labor mobilization between the imperial Qin (late third century BCE) and the mature Han (first century BCE – first century CE) is thrown into high relief by comparison of frontier populations that are relatively well-documented due to the pattern of source preservation. Although the proportion of convicts and other unfree individuals among the inhabitants of the Qin southern frontier cannot be established with precision, the Qianling archive data suggests it was very considerable, to the extent that the majority of the labor force available to local governments might well have been composed of convicts.

The Han government, too, encouraged immigration to the frontiers, especially the northern and northwestern ones that had to be protected against nomadic incursions. However, populations

[325] For the relatively small number of slaves and the limited economic application of their labor in Han society vis-à-vis classical Greece and Rome, see Wilbur, *Slavery in China*; Shi Yang, "Liang Han Sanguo shiqi 'yong' qunti de lishi yanbian," 69. Other scholars believe that the number of slaves could have been considerable during the early years of the empire, partly due to the enslavement of the relatives of criminals sentenced to mutilating punishments. See Yates, "Slavery in Early China," 283-331.

[326] See Scheidel, "Slavery and Forced Labor," 143: "Whereas Roman elites effectively owned the state and sought to maximize their benefits from it, in the century leading up to the completion of the Qin conquests the most successful Chinese states worked hard to contain elite privilege, and Western Han rulers (and then especially Wang Mang) strove to maintain this practice at least up to a point. Both of these processes served to restrict private slave use."

[327] For an engaging discussion of convict labor in the Han Empire, see Barbieri-Low, *Artisans*, 227-245.

were attracted and maintained through transfers of cash rather than unfree manpower. Massive influx of coin, partly raised in the tax in substitution for labor services (*gengfu* 更賦), from the empire's hinterland to the frontier served to hire soldiers, administrative personnel, and general workforce.[328] Concentration of purchasing power at the frontier contributed to the expansion of trading circuits, influx of goods, especially textiles, from the empire's "inner commanderies" that were often traded further along the Inner Asian commercial routes of the so-called "Silk Road."[329]

There was another, similarly unintended and momentous consequence. Part of the general trend toward the contraction of the state-managed system of unfree labor was the abolition of military-cum-labor conscription regime and concomitant monetization of the frontier service. This paved way to the spread of mercenaryism and incorporation of contingents of pastoralists from beyond the imperial frontiers into the Han military.[330] The consequences were accelerated migration of nomadic populations into the empire and socio-political changes among its neighbors to the North and North-West, particularly, consolidation of military power and accumulation of wealth among their elites, which increasingly depended on political engagement and economic

[328] Helen Wang, *Money on the Silk Road: The Evidence from Eastern Central Asia to c. AD 800* (London: The British Museum Press, 2004), 47-56; Wang, "Official Salaries and Local Wages at Juyan, North-West China, First Century BCE to First Century CE," in Jan Lucassen, ed. *Wages and Currency: Global Comparisons from Antiquity to the Twentieth Century* (Bern and Berlin: Peter Lang, 2007) 59-76, esp. 67-68.

[329] Some scholars have recently emphasized the role of government-sponsored trade defined by the needs of imperial military, rather than that initiated and staffed by private merchants, in the development of the "Silk Road." See Valerie Hansen, *The Silk Road: A New History* (Oxford: Oxford University Press, 2012), 81-82.

[330] For the abolition of universal military service at the beginning of the Eastern Han period, see Lewis, "The Han Abolition of Universal Military Service," in Hans van de Ven, ed., *Warfare in Chinese History* (Leiden: Brill, 2000), 33-76.

exchange with the Chinese state.[331] This interaction eventually became central to the history of the late Han Empire and especially during the subsequent period of disunity.[332]

The changing nature of state control over labor resources affected not only the composition of empire's society and the expansion of market exchange within its frontiers, but also the forms of its engagement with the broader world.

[331] For a study of state- and empire-building among pastoralists and nomads and its dependence on the economic and political interaction with the neighboring sedentary empires, see Barfield, *The Perilous Frontier: Nomadic Empires and China* (Cambridge, MA, and Oxford: Blackwell, 1989); and Barfield, "The Shadow Empires," 10-41.

[332] On the nomadic invasions of China after the fall of Han and the hybrid Chinese-nomadic states that dominated North China after 316 CE and exerted enormous impact on the social, economic, and political organization, culture, language, and ethnic history of medieval China, see, for example, Lewis, *China Between Empires: The Northern and Southern Dynasties* (Cambridge, MA, and London: Harvard University Press, 2009), 145-151.

Chapter 5 : Conquering distance: transferring goods and people in the Qin Empire

The *Shiji* "Biographies of money-makers" (*huozhi liezhuan* 貨殖列傳) contain a detailed inventory of supplies needed to maintain an urban center: "A big city situated at the crossroads [requires] every year thousands of jars of ale, thousands of ewers of vinegar and soy sauce, thousands of cans of syrup, thousands of ox, sheep, and pig hides, thousands of *zhong* of grain, thousands of carts of firewood and straw, boats of a [combined] length of thousands of *zhang*, thousands of timber logs, thousands of bamboo poles, hundreds of light carriages, thousands of ox wagons, thousands of wooden and lacquer objects, bronze items weighting thousands of *jun*." The list goes on and on to mention cloth, livestock, horses, lacquer, leather manufactures, fish, jujubes, chestnuts, fruit, vegetables, and so on.[1] Supplying a city was an enormous exercise in logistics.

In its well-known advocacy of the laissez-faire economy, the "Biographies" argue that supplying networks are the work of market forces that direct products and goods to the loci of demand in a fashion "resembling the downwards plunge of water, day and night without ceasing, they will come without having been summoned, and will produce without having been asked."[2] On the eve of the imperial unification, East Asian landmass was traversed by countless riverine and overland transportation routes along which goods and people travelled.[3] While many of these

[1] *Shiji*, 129.3274-3277.

[2] *Shiji*, 129.3254.

[3] See, for example, Zhongguo gonglu jiaotong shi bianshen weiyuanhui 中國公路交通史編審委員會, ed., *Zhongguo gudai daolu jiaotong shi* 中國古代道路交通史 [*A history of road transportation in ancient China*] (Beijing: Renmin jiaotong, 1994), 18-35, which also provides a map of the road system in the Warring States period (on pp. 20-21).

routes were used from as early as the beginning of the Bronze Age or earlier, others emerged as the result of the economic expansion during the Warring States period. Yet others were opened up and maintained by purposeful state effort.[4] They were often designed to serve the purposes of military logistics rather than private commerce. Urban supplying networks celebrated in the *Shiji* were to a considerable extent an outcome of the state-sponsored reshaping of demographic and economic landscapes in the emerging empire.

While it is generally assumed that transport infrastructure has a positive impact on economic performance, quantifying its benefits proved to be a challenging task even in modern societies, for which much better data is available than for the early Chinese empires.[5] Nevertheless, the general analysis as well as case studies of relatively well-documented premodern road networks suggest that transportation routes not only contributed to political consolidation and formation of new cultural identities but also allowed for greater specialization, productivity of labor, and economic integration; facilitated access to resources; improved the living standards of communities; and triggered changes in settlement patterns, particularly urbanization.[6] In other

[4] Some of the most important and long-distance transportation routes still functional in the Warring States and early imperial periods were developed during the early Bronze Age (first half of the second millennium BCE) to supply the major polity in the Yellow River basin, Erlitou 二里頭 (in the area of modern Luoyang 洛陽 City in western Henan Province), with copper from the mines in the middle and lower flows of Yangzi River. These routes, possibly also used to ship northern salt to the south, made use of the major river systems such as those of Huai and Han rivers. For more detail, see Liu and Chen, *State Formation in Early China*, 50-56. The earliest evidence for systematic state involvement in the development of communication system is dated from the Western Zhou period (1046-771 BCE), see Lei Jinhao 雷晉豪, *Zhou dao: fengjian shidai de guandao* 周道：封建時代的官道 [*The way of Zhou: Official roads in the feudal era*] (Beijing: Shehui kexue wenxian, 2011).

[5] The difficulties of quantitatively assessing the impact of infrastructural development on economic growth are discussed, for example, in David Gillen, "Transportation Infrastructure and Economic Development: A Review of Recent Literature," *Logistics and Transportation Review* 32.1 (1996): 39-62; and Ambe Njoh, "Transportation Infrastructure and Economic Development in Subsaharan Africa," *Public Works Management & Policy* 4.4 (2000): 286-296.

[6] For the economic impact of Roman roads, see, for example, Bruce Hitchner, "Roads, Integration, Connectivity, and Economic Performance in the Roman Empire," in Alcock et al., eds., *Highways, Byways, and Road Systems*, 222-234; Michael Maas and Derek Ruths, "Road Connectivity and the Structure of Ancient Empires: A Case Study from Late Antiquity," in Alcock et al., eds., *Highways, Byways, and Road Systems*, 255-264.

words, transportation networks were an important factor in economic change. The scope, forms, and results of their impact were defined, among other things, by the agents involved in designing, building, and mapping this infrastructure.

This chapter explores the material, organizational, and intellectual aspects of state-organized transfers of goods and people in the Qin Empire. Until recently, the study of the Qin transportation system disproportionately focused on its most well-known elements such as the Straight (or Direct) Road (*zhidao* 直道) that connected the capital to the northern frontier and in recent decades became the object of archaeological study.[7] Less well-understood is the network of imperial highways (*chidao* 馳道) allegedly constructed under the First Emperor to facilitate his progresses across the empire.[8] Documents on bamboo slips and wooden tablets recently excavated from Qin sites shed light on the state involvement in the organization of connectivity at the local level. These texts also highlight the importance of long-distance transportation routes poorly documented in transmitted histories and allow better understanding of the goods and people that travelled on these routes.

Most of the available information originates from the southern regions, in particular, the Qianling County archive. Some important evidence also comes from the north-western corner of the empire where a set of seven maps dating from the late Warring States period was excavated in

[7] For a recent survey of textual and archaeological studies on the Straight Road, see, for example, Sun Wenbo, "Qin Zhidao de lishixue tansuo – yi zouxiang, xiuzhu yu yanxian yicun wei zhongxin" 秦直道的歷史探索—以走向、修築與沿線遺存為中心 [A historical study of the Qin Straight Road: With a focus on its direction, construction, and archaeological remains along its route], *Zhongguo shi yanjiu dongtai* 中國史研究動態 3 (2018): 56-59; Shaanxi sheng kaogu yanjiuyuan Qin Han kaogu yanjiushi 陝西省考古研究院秦漢考古研究室, "2008–2017 nian Shaanxi Qin Han kaogu zongshu" 2008-2017 年陝西秦漢考古綜述 [A survey of Qin and Han archaeology in Shaanxi Province in 2008–2017], *Kaogu yu wenwu* 考古與文物 5 (2018): 66-110, esp. 98-100; and Sanft, *Communication and Cooperation in Early Imperial China*, 107-121.

[8] For a recent survey of scholarship on the transportation system of early empires, see Fujita, *Chūgoku kodai kokka to jūhō dentatsu*, 413-456.

1986 from the tomb of a Qin local official.[9] The majority, if not all, of this new data is embedded in official context, being discovered either as part of local government archives or from the tombs of state functionaries. In the latter cases, it is often explicitly associated with their official service as, for example, in the detailed recording by local officials of their spatial moves in the so-called "event calendars" (*zhiri* 質日), samples of which have been excavated from a number of Qin and Western Han burials.[10] While it is well-known that the government of early empires heavily invested in the construction and maintenance of the transportation system and that some important roads and canals were built as state-organized projects, the extent of the state's multifaceted efforts to promote geographic mobility only became visible in the wake of these document discoveries.[11]

The chapter starts with the overview of the geographic mobility of people and goods on the eve of the imperial unification, which represented both opportunity and challenge to the activist state that claimed undivided control over its subjects' whereabouts and moves. The second section addresses the state's investment in physical, institutional, and intellectual infrastructures of mobility in the late Warring States and early imperial periods. The deployment of these infrastructures was instrumental in the state penetration of the countryside; in the creation of new concepts and practices of territoriality; and, as a consequence, in reshaping social, cultural, and economic landscapes of continental East Asia.

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[9] See, for example, Yong Jichun 雍際春, *Tianshui Fangmatan mudu ditu yanjiu* 天水放馬灘木牘地圖研究 [*A study of maps on wooden tablets from Fangmatan, Tianshui Municipality*] (Lanzhou: Gansu renmin, 2002), 1-3.

[10] On the "event calendars", see, for example, Su Junlin 蘇俊林, "Guanyu "zhiri" jian de mingcheng yu xingzhi" 關于"質日"簡的名稱與性質 [On the title and nature of "event calendars"], *Hunan daxue xuebao (shehuike xueban)* 4 (2010): 17-22; Li Ling 李零, "Qin jian de dingming yu fenlei" 秦簡的定名與分類 [Naming and categorization of the Qin documents on bamboo and wood], *Jianbo* 6 (2011): 1-7; Chen Wei, "Event Calendars" in the Early Imperial Era," 446-468.

[11] For a recent discussion of state regulation of travel and the use of transport infrastructure in the early Chinese empires, see Michael Nylan, "The Power of Highway Networks," 33-65.

The third section is devoted to case studies of physical mobility of goods and people in the Qin Empire informed by the needs of the state and made possible by the previously discussed infrastructural arrangements. One of the debated topics in the history of ancient empires is the degree of connectivity between their regions. Newly excavated textual evidence points at the substantial state investment in land reclamation in the Middle Yangzi basin and large-scale shipments of grain between the Yangzi and the Yellow River basins some 800 years prior to the construction of the Grand Canal (late sixth and early seventh century CE). Such long-distance transfers of resources, as well as smaller-scale but still substantial transfers at the regional and local levels, were necessitated by the state-sponsored resettlement programs and the emergence of concentrated demand for agricultural and artisan products in some areas. I consider financial and other organizational arrangements for the geographic mobility of individuals and discuss the socio-economic impact of one specific type of state-organized migration, the compulsory resettlement to the metropolitan region in the Wei River basin.[12]

The final section summarizes the socio-economic outcomes of the imperial "conquest of distances": its impact on economic integration and transition to market-oriented fiscal policies and the formation of imperial territory as a shared sphere of geographic mobility.

[12] For a very recent analysis of the role of coerced migration in empire-building in ancient China, see Barbieri-Low, "Coerced Migration and Resettlement in the Qin Imperial Expansion," *Journal of Chinese History* (2019): 1-22. While I also recognize the importance of state-organized migration, my analysis diverges from that of Barbieri-Low in the assessment of the scope of resettlement projects and the mechanisms of economic change they triggered.

1. The world of increasing geographic mobility

1.1. Geographic mobility in the Warring States and early imperial era

As elsewhere, people inhabiting the East Asian mainland have always been migrating and traveling. Geographic mobility picked up during the periods of environmental crises or socio-political turmoil. Destruction, foundation, and expansion of polities were typically accompanied by large-scale resettlements of both hostile and friendly populations.[13] To facilitate contacts with the newly established settlements and military garrisons, enhance the control over conquered territories, and make possible the delivery of tribute, early states invested into infrastructures of physical mobility, especially the road system. The earliest recorded state effort to improve transportation routes and to integrate them into a single system that served the goals of expansion and military control dates to the Western Zhou era.[14] A study of the Zhou colonization in Shandong, Hebei, and to the north of the Middle Yangzi makes it clear that the regional polities were established along the major roads and transportation corridors that were known and exploited prior to the arrival of the Zhou.[15]

[13] Such organized resettlements were probably taking place as early as the earliest state formations in late Neolithic and early Bronze Age China. A dramatic, 80% increase in the population of the Luo River basin soon after 1900 BCE coincided with the foundation of Erlitou 二里頭 polity that dominated much of the lower Yellow River basin between 1900 and 1500 BCE. Scholars have recently argued that Erlitou set the model for state-building in China, which involved the emergence of a major metropolitan center by far surpassing all other settlements within the polity in terms of population. See Zhang Li 張莉, "Wenxian zhi wai de Xia dai lishi – kaoguxue de shijiao" 文獻之外的夏代歷史—考古學的視角 [Xia Dynasty history beyond the written sources: An archaeological perspective], *Zhongguo wenhua yanjiu* 中國文化研究 2018 (Fall): 38-50. The beginning of the Western Zhou era (1046–771 BCE) provides the earliest detailed record of population relocations, including the foundation of regional Zhou states and the resettlement of conquered Shang lineages. For a detailed analysis, see Li Feng, *Landscape and Power*, 27-90.

[14] One study of the Zhou roads characterized them as the conduits of armed colonization that was carried out by the early Western Zhou rulers on the conquered territories on the Great Plain and in Shandong. See Lei Jinhao, *Zhou dao*, 46-168.

[15] See Li Feng, *Landscape and Power*, 300-342.

The historical dynamics of geographic mobility in ancient China cannot be outlined in any detail because of the lack of quantitative data about the number of travels for any particular year. Yet most scholars agree that the Warring States and early imperial periods witnessed a substantial increase in geographic mobility of the general populace. In most general terms, it is often explained by the disintegration of bonds that tied individuals to social units, especially kinship groups, accompanied by technological progress, including the improvements in the means of transportation and infrastructural developments, especially the digging of canals.[16] The following passages offer a concise survey of factors in the routinization of geographic mobility in the second half of the first millennium BCE.

Transmitted writings disproportionately focus on the mobile elites that became a hallmark of the Warring States period. Political and intellectual spheres were dominated by itinerant statesmen and thinkers such as Confucius (551–479 BCE), Mencius (372–289 or 385–303/2 BCE), and Shang Yang (390–338 BCE). Long-distance travels from one royal or aristocratic court to another became a routine part of life of many members of the *shi* 士 stratum, a vaguely defined class of administrative, financial, military, and ritual experts recruited primarily from the ranks of debased collateral branches of aristocratic lineages.[17] One modern author describes the world of the Warring States intellectuals as "a huge market of talent, in which a gifted person could seek employment at any of the competing courts."[18] This extraordinarily ubiquitous elite mobility, some

[16] See, for example, Yang Kuan, *Zhanguo shi*, 111-115; Lei Jinhao, *Zhou dao*, 358-396.

[17] For classic accounts of the emergence of the *shi* class and their geographic and social mobility, see Hsu, *Ancient China in Transition*, and Lewis, *Sanctioned Violence.*

[18] Pines, *Envisioning Eternal Empire*, 168.

scholars argue, contributed to the weakening of local identities and regional loyalties and to the emergence of the political ideal of a unified oikumene.[19]

While the rising geographic mobility of the elite is well-attested in transmitted sources and has been discussed by scholars for a long time, conditions of other social groups are more obscure. The best evidence is probably provided by the daybooks, prognostication almanacs that prescribe auspicious days for various quotidian activities. Nineteen such manuscripts dating from the late Warring States, Qin, and Han have been excavated from tombs mostly belonging to low-ranking local officials. These texts are believed to reflect popular beliefs and rituals of the time.[20] Travels belong to the most common prognostication topics in these manuals, while other texts describe offerings and prayers to various road deities for a safe journey.[21]

While physical mobility was becoming a part of personal life not only of the lower elites but also of the commoner members of the society, some people traveled more often and over greater distances than others. Merchants formed a group particularly disposed to frequent travels in pursuit of commercial opportunities. The *Shiji* "Biographies of money-makers," quoted at the beginning of this chapter, opens its list of successful merchants with a certain Fan Li 范蠡, a military advisor to Gou Jian 勾踐 (r. 495–465 BCE), the king of Yue and the last of the "five hegemons." Fan eventually escaped his master and after a long journey settled down at the major

[19] See, for example, Pines, "The One that Pervades the All," 280-324; Dingxin Zhao, *The Confucian-Legalist State: A New Theory of Chinese History* (Oxford: Oxford University Press, 2015), 94.

[20] For a general introduction to the daybook manuscripts, see Donald Harper and Marc Kalinowski, eds., *Books of Fate and Popular Culture in Early China: The Daybook Manuscripts of the Warring States, Qin, and Han* (Leiden and Boston: Brill, 2017). The known specimens of prognostication almanacs were mainly excavated from the tombs of relatively low-ranking local officials who probably shared many religious ideas and beliefs of the general populace.

[21] For a discussion of travel-related prognostications and rituals, see, for example, Nylan, "The Power of Highway Networks," 48-55.

commercial entrepot of Tao 陶 in what is now south-western Shandong Province. From there, he launched business operations to accumulate wealth that made him an epitome of an opulent man.[22] Fan Li's entrepreneurial skill and achievement could have been extraordinary, but travelling was almost certainly important in the life of every man of commerce. A document from the Qianling archive conveys the story of a certain Lang 狼, a tile merchant from the southern frontier of the Qin Empire, who borrowed a boat from the county government to conduct his trade. His mobility made it difficult for the local officials to track him down when he did not return the boat on time.[23] In contrast to Fan Li, Lang appears to have been of a very modest social standing.

A few factors were instrumental in the increasing geographic mobility of the commoner population. In Chapter 1, we already discussed the impact of Qin colonization on the change in demographic, cultural, and economic landscapes of different regions. These state-organized resettlement projects capitalized on the territorial expansion of Zhou society that gained momentum with technological improvements, population growth, and social transformation in the late Spring and Autumn and Warring States eras. Settlers from the state of Qin moved into the loess plateau to the north of their homeland in the Wei River valley. In the northeast, immigrants from the state of Yan settled in the Siramören (Xilamulun) basin in Inner Mongolia and continued advancing toward the Korean Peninsula. In the south, large cemeteries of Chu tombs in the Changsha area attest to the penetration into the Xiang River valley by the Chu colonists in late fourth and third centuries BCE.[24]

[22] *Shiji*, 129. 3257-3258.

[23] *Liye Qin jiandu*, vol. 1, 72-76, tablet 8-135.

[24] Falkenhausen, *Chinese Society*, 284-287.

Communities founded on the new lands differed from those in the old political cores of the Zhou states. The absence of large and wealthy tombs in the excavated Qin cemeteries on the loess plateau and the relatively loose social hierarchy reflected by the cemetery evidence from Changsha mark a relatively egalitarian society in which the social boundaries more permeable than in the old political centers.[25] The quest for a more open social and economic organization drove the colonists to peripheral lands that offered not only large tracts of cultivable soil but also industrial and commercial opportunities, which, in turn, involved more mobility.[26]

Urban growth was another important factor that boosted the physical mobility of the general populace.[27] While the state-managed workshops in capital cities often relied on hereditary groups of artisans for their labor force, the overall expansion of urban economy necessitated the influx of manpower, much of which migrated on its own initiative. Both transmitted and excavated texts from the late pre-imperial and early imperial periods routinely refer to newcomers seeking and finding employment in cities.[28] Once the business was established, artisans sought to expand their marketing territories. When the relevant evidence becomes available in the Western Han

[25] Falkenhausen, "Social Ranks in Chu Tombs," 470-471; Falkenhausen, *Chinese Society*, 284-285.

[26] Probably the best studied example of a large-scale private production and commercial enterprise at the fringes of the Zhou cultural sphere are the salt works in the Three Gorges area on the Yangzi River. See Rowan Flad, *Salt Production and Social Hierarchy in Ancient China: An Archaeological Investigation of Specialization in China's Three Gorges* (Cambridge: Cambridge University Press, 2011); Flad and Chen, *Ancient Central China*, 193-206. For the emergence of long-distance commercial routes along the course of the Xiang River connecting the Chu core on the Central Yangzi with the Lingnan region and South-East Asia that coincided with the Chu colonization of the Xiang valley, see, for example, Peters, "Towns and Trade," 113-116.

[27] On urbanization during the Warring States period, see, for example, Chen Shen, "Compromises and Conflicts: Production and Commerce in the Royal Cities of Eastern Zhou, China," in *The Social Construction of Ancient Cities*, ed. Monica Smith (Washington and London: Smithsonian Books, 2003), 290-310.

[28] For a recent overview of wage labor in the early imperial period, see Ma Zengrong 馬增榮 (Tsang Wing Ma), "Qin Han shiqi de guyong huodong yu renkou liudong" 秦漢時期的僱傭活動與人口流動 [Hired labor and population mobility in the Qin and Han periods], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2946, accessed February 12, 2018.

period, artisans routinely traveled several dozens of kilometers to reach their clients, while some particularly lucrative commissions attracted craftsmen from as far as three to five hundred kilometers away.[29]

In the course of the Warring States period, various Zhou states developed elaborate mechanisms to control the geographic mobility of their subjects. Still, the state had to operate in the socio-economic environment when a lot of people were moving around with or without formal permission. We usually learn about them as they enter official records, but almost certainly many passed under the state's radar. Even on the military frontier, where the state control over population was relatively stringent, people migrated on their own volition while officials were struggling to keep track of their moves. In June 221 BCE, for example, a group of seventeen households decided to move from Qiling District to the Town District of Qianling County. Nothing indicates that their resettlement was officially organized. After the move was already completed, functionaries in the Town District discovered that the necessary paperwork was lacking. Part of the resulting communication between the two districts is preserved in the Qianling archive:[30]

廿六年五月辛巳朔庚子，啟陵鄉推敢言之：都鄉守嘉言：渚里不□
劾等十七戶徙都鄉，皆不移年籍。令曰移言● 今問之，劾等徙□
書告都鄉曰：啟陵鄉未有菜，毋以智（知）劾等初產至今年數□
皆自占，謁令都鄉自問劾等年數，敢言之。

Twenty-sixth year [of King Zheng, i.e., the First Emperor], in the fifth month, *xin-si* being the first day of the month, on the day *geng-zi* (June 13, 221 BCE). Tui, the Head of Qiling District, dares to report: Jia, the [Provisional] Head of the Town District, states [the following]: In the Zhu Ward… He and others, [altogether] seventeen households,

[29] Barbieri-Low, *Artisans*, 131-138.

[30] *Liye Qin jian bowuguan cang Qin jian*, 70, tablet 16-9.

> resettled to the Town District. For none of them registers of age have been transferred.[31] The ordinance prescribes [these] to be transferred and reported. •Now [I] inquired into this matter, He and others who resettled… I hereby report to the Town District: There are no records in Qiling District, so that we have no way to know how many [years passed] between the time when He and others were born until the present… [Let] all of them self-report.[32] We request that the [authorities of the] Town District be ordered to inquire after the age of He and others. Dare to report this.

In spite of the seemingly inconsequential scale of this resettlement, seventeen households represented a substantial portion of the district's population in Qianling County. Their move took place one year after Qin took over the area. Even though the document does not explain the reasons, nor whether the households belonged to local residents or to the colonists who arrived after the conquest, one can speculate that in the turbulent frontier environment they deemed it safer to reside closer to the fortified county seat than in the remote district.[33] Somewhat surprisingly, the local government does not appear to have possessed either the means or intention to prevent such resettlement, and it is not represented as an extraordinary event in the official communication.

The Qianling archive contains records of more long-distance private migrations. In 212 BCE, a household, presumably resident in Qianling County, relocated to Lujiang 廬江

[31] "Registers of age" (*nian ji* 年籍) were one type of population registers listed in the early Western Han "Statute of households" (*hu lü*), see *Ernian lüling yu Zouyanshu*, 222-223, slips 328-330; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 798-799, 816, n. 111. This legal article also prescribes the transfer of this and other household documents whenever a household was relocating to the new place of residence and official registration. Apparently, these rules were already in place in the Qin Empire.

[32] According to the *Shiji*, King Zheng of Qin required his subjects to self-report (*zi zhan* 自占) their ages in 231 BCE, see *Shiji*, 6.232. This self-reporting probably provided data for the compilation of "registers of age". Subsequently the statutes required all "new" subjects to self-report their ages as they were entering the official population record, see *Ernian lüling yu Zouyanshu*, 222, slips 325-327; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 796-797, 813-814, n. 93.

[33] According to the reconstructions of administrative geography of Qianling County, Qiling was located further away from the county seat than the other two districts of the county, the Town and Erchun Districts. See Yan Changgui and Guo Tao, "Liye Qin jian suojian Qin Qianling," 148; Miyake, "Shindai Senryō kenshi shokō," 1-32.

Commandery down the Yangzi River.[34] A household of a holder of the fourth *bugeng* social rank migrated in the opposite direction, from Lujiang to Qianling.[35] Other two fragmentary documents mention individuals formerly resident in Weiqi 魏其 County of Langye 琅邪 Commandery in what is now southern Shandong Province.[36] Too little of these tablets survive to understand the status of these migrants and the motivations for their resettlement, yet the wording of the documents suggests they were not convict criminals nor other dishonored persons par excellence subject to forced relocation. Instead, they appear to have been ordinary households that on their own initiative moved many hundred kilometers south-west in search of a better life and/or economic opportunities.

1.2. Restricting and directing mobility

Although much of the private mobility passed under the state radar, Qin rulers and administrators made efforts to monitor and direct the moves of people and goods or to restrict these moves altogether when they were deemed undesirable or dangerous. Suspicion of unauthorized private travels pervades more than one treatise collated under the title of the *Book of Lord Shang* that reflect political and administrative thought in the state of Qin during and after the mid-fourth century BCE reforms. The text is primarily concerned with the mobility of commoners particularly prone to migration, such as artisans. Others recommended summarily suspending people's ability to "drift," particularly by shutting down the infrastructure of geographic mobility such as

[34] *Liye Qin jiandu*, vol. 1, 402, tablet 8-1873.

[35] *Liye Qin jiandu*, vol. 1, 424, tablet 8-2056. Only a small fragment of the tablet survived, which contains a formal confirmation of receiving some documents with regard to a *bugeng* household from Lujiang Commandery. In all likelihood, the documents mentioned were household registers.

[36] *Liye Qin jiandu*, vol. 1, 429-430, tablet 8-2098; 435, tablet 8-2133.

accommodation facilities.[37] The Legalist preoccupation with restricting people's ability to move without official authorization laid foundation to the political tradition of mobility control in the centralized bureaucratic states in China, which endures until the present day as exemplified by the *hukou* system. Elite mobility was much less constrained, with some leading Legalist thinkers arguing in favor of travelling experts and intellectuals.[38]

The basic mechanism for controlling the physical mobility of subjects was household registration, a regime that required each individual to be registered in particular community, *li* 里, which could be either a rural village or an urban ward. Residents were not supposed to unauthorizedly leave their communities.[39] To facilitate the task for local functionaries of keeping track of subjects' whereabouts, personal information on the official files included more or less detailed description of physical features of each individual that would allow his identification in case of abscondence. Such records were excavated at Liye, as illustrated by the following example:[40]

> 嬰晢色，長二尺五寸，年五月，典和占
> 浮晢色，長六尺六寸，年卅歲，典和占

[37] For the proposal that the ruler should not employ skillful artisans so that not to encourage the populace to "be volatile and easily migrate," a behavior supposedly typical of artisans, see *Shangjun shu zhuizhi*, 2.47; Pines, *The Book of Lord Shang*, 162. For the argument that subjects' mobility jeopardizes their occupations and advice to prohibit unauthorized private migrations, see *Shangjun shu zhuizhi*, 1.13, 1.17; Pines, *The Book of Lord Shang*, 128, 130. For the advice to abolish accommodation facilities for travelers, see *Shangjun shu zhuizhi*, 1.11; Pines, *The Book of Lord Shang*, 127.

[38] The best-known example of such an argument is the memorial submitted by Li Si 李斯 (ca. 280–208 BCE), the chief advisor to the would-be First Emperor, who himself arrived to the Qin court from the state of Chu. See *Shiji*, 87.2541-2545.

[39] There is substantial literature on the household registration system in the Qin and Han empires. For a recent English-language discussion of household registration in the Qin based on the population registers excavated at Liye, see Sanft, "Population Records from Liye," 249-269.

[40] *Liye Qin jiandu*, vol. 1, 178, tablet 8-550.

Zeng, light-color [skin], 2 *chi* 5 *cun* (ca. 57.8 cm) high, five months old, attested by Village Chief He
Fu, light-color [skin], 6 *chi* 6 *cun* (ca. 152.5 cm) high, thirty years old, attested by Village Chief He

Such records could be used to track down individuals thousand kilometers away from their place of residence, as suggested by what is likely a fragment of the Qin warrant issued in a manhunt:[41]

故邯鄲韓審里大男子吳騷，為人黃皙色，隋（橢）面，長七尺三寸☐
年至今可六十三、四歲，行到端，毋它疵瑕，不智衣服、死產、在所☐

An adult male Wu Sao, originally from the Hanshen Ward of Handan, [with the following] personal [features]: light-yellow skin, oval-shaped face, 7 *chi* 3 *cun* (ca. 168.6 cm) high…
For the present up to 63-64 years of age, straight gait, no other marks. It is unknown what clothes [he wears], whether or not he is alive, nor his whereabouts…

Handan 邯鄲, the former capital of the state of Zhao conquered by the Qin armies in 228 BCE, was located some 930 km to the north-east of Qianling as the crow flies.[42] It is unclear if the person mentioned in the warrant, Wu Sao, was known to have been in Qianling or somewhere in the south, or if the manhunt web was cast indiscriminately empire-wide. Should he have been on an official commission as, for example, a frontier serviceman, this would have been specified in the text.[43] More likely, therefore, Wu was either an absconder or a private traveler who was kidnapped or otherwise disappeared on his voyage so that he failed to return on time, which was

[41] *Liye Qin jiandu*, vol. 1, 244, tablet 8-894.

[42] For the location of Handan, which in the Qin Empire was the center of a commandery bearing the same name, see *Zhongguo lishi dituji*, vol. 2, 9-10.

[43] See, for example, *Liye Qin jiandu*, vol. 2, 220, tablet 9-885.

brought to officials' attention. In any event, the document suggests that the government was deploying personal information in its possession to monitor and restrict the mobility of its subjects.

At present, it is unclear whether the Qin authorities issued identity documents for travelers that contained personal information. As will be demonstrated later in this chapter, "travel certificates" (*chuan* 傳) used by traveling officials did not contain records on the physical appearance of their holders. However, the Qianling archive contains a number of identity records with information on the body height, skin color, age, and occasionally other physical features of individuals that resembles the above-quoted documents. While some of these records are warrants issued in a manhunt,[44] the purpose of others is less clear due to their fragmentary preservation.[45] Two better-preserved documents of identical formulaic structure were issued by the Qianling County authorities to two frontier servicemen stationed in Qianling on rotational basis (*geng shuzu* 更戍卒).[46] The administrative records from the north-western frontier of the Han Empire suggest that in the first century BCE such records were used to establish the identity of travelers as they were crossing the border or passing checkpoints on the route,[47] the practice that probably originated in the Qin Empire.

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[44] As, for example, *Liye Qin jiandu*, vol. 1, 401, tablet 8-1863+8-1866+9-1733. The document was initially reconstructed from two fragments, 8-1863 and 8-1866. Another fragment was added by the Wuhan University research team working on the reconstitution of the Liye documents from fragments after the publication of the second volume of Liye materials containing texts from layer 9 in the Liye well no. 1. See Liye Qin jiandu jiaoshi xiaozu, "*Liye Qin jian (er)* zhuihe bu (yi)"《里耶秦簡（貳）》綴合補（二） [Reconstruction of documents in *Liye Qin jian*, vol. 2 (part 2)], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=3094, accessed June 12, 2018.

[45] See, for example, *Liye Qin jiandu*, vol. 1, 400, tablet 8-1853; vol. 2, 75-76, tablet 9-142+9-337; 96-97, tablet 9-259+9-272; 240, tablet 9-1003; *Liye Qin jian bowuguan cang Qin jian*, 58, tablet 12-140.

[46] *Liye Qin jiandu*, vol. 2, 199, tablet 9-757; 220, tablet 9-885.

[47] See, for example, Xie Guihua 謝桂華, Li Junming 李均明, and Zhu Guozhao 朱國炤, eds., *Juyan Han jian shiwen hejiao* 居延漢簡釋文合校 [*Collected and edited transcriptions of the Han documents from Juyan*] (Beijing: Wenwu, 1987), 75, slip 43.13; 110, slip 62.34; Gansu jiandu baohu yanjiu zhongxin 甘肅簡牘保護研究中心 et al., eds., *Jianshui Jinguan Han jian* 肩水金關漢簡 [*Han slips from Jinguan, Jianshui*], vol. 1, part 3 (Shanghai: Zhongxi,

Identity documents were required not only for travelling humans but also for animals. A Qin ordinance from the Yuelu Academy collection specifies that sales of horses and cows as well as slaves across county borders required special passports (*chuan shu* 傳書) to be issued by the county authorities.[48] While such a procedure almost certainly resulted in protracted transactions, it was also useful for maintaining property rights during the otherwise precarious period when purchased livestock and slaves were transferred between two jurisdictions. Passports also could serve as certificates of ownership after the transfer was completed but the new ownership of property was not yet fully recognized at the community level. A criminal case record dated from the very beginning of the Western Han (ca. 199–197 BCE) mentions a horse passport "distinguishing marks and coloring" that was necessary for those travelling on horseback. Such passports could be checked by the officials at the frontier checkpoint but also within the imperial or even commandery borders.[49]

An unauthorized leave of one's place of residence or service or a failure to return on time qualified as abscondence (*wang* 亡), a serious crime under the imperial law dealt with in the special statute "On abscondence."[50] The extant fragments of the Qin statute are primarily concerned with punishments for runaway convicts, slaves, and those who harbored them as well as runaway commoners. At the beginning of the Western Han, abscondence for a period longer than one year

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2011), 35, slip 73EJT3:95; 41, slip 73EJT4:52; 45, slip 73EJT4:111. For a discussion of the use of passports on the Han north-western frontier, see, for example, Chang, *The Rise of the Chinese Empire*, vol. 2, 135-143.

[48] *Yuelu shuyuan cang Qin jian*, vol. 4, 133-134, slips 198-200.

[49] *Ernian lüling yu Zouyanshu*, 349, slips 58-59; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1258-1259. For the tentative date of the case record, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, 95.

[50] The Qin statute "On abscondence" is included in the Yuelu Academy collection, see *Yuelu shuyuan cang Qin jian*, vol. 4, 39-81, slips 001-105. The early Western Han statute was excavated at Zhangjiashan, see *Ernian lüling yu Zouyanshu*, 153-158, slips 157-173; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 574-593.

incurred a permanent hard labor sentence, while an abscondence for a shorter period was punished with a fixed-term "detention" among hard-labor convicts (for the difference between these two forms of penal labor, see Chapter 4).[51] Reports on the number of absconders and vagabonds (*jiangyang* 將陽) within the county were submitted by local authorities on an annual basis and were used to evaluate their performance and probably also to assess the level of security and social stability in commanderies.[52]

Anyone willing to undertake a travel outside his or her home county had to apply for a special permission issued by the county Commandant (*wei* 尉), an official primarily in charge of security and, by extension, also responsible for keeping track of the manpower available for mobilization within the county. The Qin statute "On the servicemen [subordinate to the county] commandant" (*weizu lü* 尉卒律) outlines the procedure for such applications:[53]

> · 尉卒律曰：緣故徼縣及郡縣黔齒（首）、縣屬而有所之，必謁于尉，尉聽，可許者為期日。所之它縣，不謁，自五日以上，緣故徼縣，貲一甲；典、老弗告，貲一盾。非緣故徼殹（也），貲一盾；典、老弗告，治（笞）□□。尉令不謹，黔首失令，尉、尉史、士吏主者貲各一甲，丞、令、令史各一盾。
>
> The "Statutes on the servicemen [subordinate to the county] commandant" state: "When the black-headed people (that is, commoners) as well as subordinate officials of the counties within the old frontier as well as [other] commanderies and counties are travelling, they are obliged to apply to the [county] commandant [for permission]. On considering their application, commandant can allow them [to travel within] a certain period of time. When they are heading to other counties and do not apply [for permission], and if their travel lasts longer than five days, then, for [the residents] of former frontier counties, fine them one suit of armor; [if their village or ward] chiefs and elders do not report them, [they] are fined one shield. For [counties] that are not [located within] the old frontier, fine [unauthorized travelers] one shield. [If their village

[51] *Ernian lüling yu Zouyanshu*, 153, slip 157; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 580-581.

[52] For such reports, see *Liye Qin jiandu*, vol. 1, 381, tablet 8-1716; vol. 2, 191, tablet 9-721.

[53] *Yuelu shuyuan cang Qin jian*, vol. 4, 111-112, slips 132-134.

> or ward] chiefs and elders do not report them, [chiefs and elders] should be flogged… If the [county] commandant is careless in issuing the order [permitting county residents or officials to travel], and the black-headed people [as the result] fail to comply with the ordinance, commandant, his scribe, and the officers in charge [of the county][54] each should be fined one suit of armor, while the [county] vice-magistrate, magistrate, and magistrate's scribe should be fined one shield."

The law makes clear that community authorities played the key role in the enforcement of regulations concerning subjects' mobility and were held responsible for any unauthorized moves of individuals within their jurisdiction.

During the Qin and early Western Han periods, Guanzhong was subject to the special regime of regulation that prevented the export of valuables and strategic goods. Scholars argue that by the beginning of the Han and probably already in the Qin Empire, this geographical term referred not only to the Qin heartland along the Wei River but also to much of the territory that became part of Qin in course of the Warring States period but before the final conquest campaigns of 230–221 BCE. In particular, this "Greater Guanzhong" included the commanderies in Hanzhong and Sichuan and to the north of the Wei River basin.[55] An imperial Qin statute specified that the sale of horses, sheep, and cattle was only allowed to Guanzhong residents who had business outside of the region (*you shi guanwai* 有事關外) and wanted to sell the horses and livestock that accompanied them on their travels.[56]

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[54] Officers in charge (lit., "gentlemen-officials", *shili* 士吏) were military officials subordinate to the county Commandant, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 570, n. 17.

[55] See Wang Zijin, "Qin Han quyu dilixue de "da Guanzhong" gainian" 秦漢區域地理學的"大關中"概念 [The notion of "Greater Guanzhong" in the regional geography of Qin and Han], in Zhongguo Qin Han shi yanjiuhui 中國秦漢史研究會, ed., *Qin Han shi luncong* 秦漢史論叢 [*Collected papers in Qin and Han history*], vol. 9 (Xi'an: San Qin, 2004), 382-395.

[56] *Yuelu shuyuan cang Qin jian*, vol. 4, 134, slips 199-200.

The early Western Han "Ordinances on fords and passes" (*jin guan ling* 津關令) prohibited any private export of valuable or militarily useful goods such as gold, bronze, iron, metal objects, and especially horses. Regional princes (*zhuhou wang* 諸侯王) had to petition the emperor for permission to acquire mounts.[57] For example, one such petition illustrates an application that regional princedoms had to submit in order to be allowed to purchase horses in Guanzhong:[58]

> 十六、相國上長沙丞相書言，長沙地卑濕，不宜馬，置缺不備一駟，未有傳馬，請得買馬十，給置傳，以為恒。· 相國、御史以聞，請許給買馬。· 制曰：可。
>
> No. 16. The Chancellor of State submitted a document from the Chief Minister of the Changsha [Regional Princedom] that stated: "The land of Changsha is low and damp, and this is not conducive to [raising] horses. Our post-relay stations are so lacking that we cannot even outfit a single quadriga of horses, nor do we yet have any horses to pull official conveyances. We petition that we may purchase horses in the Land within the Passes, to provide for postal-relay and official conveyance stations, and that this be made a permanent [policy]."
> The Chancellor of the State and the Chief Prosecutor made this known [to the Emperor]. They petitioned: "[The Changsha Regional Princedom] should be permitted to purchase horses to provide for post-relay stations."
> The Imperial decision stated: "It can be done."

Guanzhong's openness to the steppes in the north and north-west rendered it the major entrepot for lucrative cattle and horse trade with the nomadic neighbors of the empire,[59] while horses were difficult to raise and maintain in the damp sub-tropical regions such as the regional princedom of Changsha in present-day Hunan Province. As will be discussed in the third section of this chapter, the capital region (or historical Guanzhong that constituted the core of Greater

[57] *Ernian lüling yu Zouyanshu*, 305-325, slips 488-525; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1112-1166.

[58] *Ernian lüling yu Zouyanshu*, 321, slips 516-517; translation follows Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1140-1141, with some minor changes.

[59] See, for example, *Shiji*, 129.3261-3262.

Guanzhong) with its concentration of wealth and high level of urbanization provided an extremely attractive market that the state was both willing and well-positioned to tap by organizing and financing long-distance shipments of commodities and resettlements of people that further augmented the region's role as a consumption center of the empire. By the beginning of the Western Han, control over the trade flows converging on and passing through the metropolitan region became one of the foundations not only of economic but also of political and military power of the imperial government.

2. Investing in mobility: the state and the infrastructure of geographic mobility

On November 24, 219 BCE, a long and tantalizing investigation of a politically sensitive case involving a magistrate who, in his superior's view, had failed to ruthlessly suppress an insurgency in the recently conquered lands to the south of the Yangzi and to penalize local militia conscripts for having fled the battlefield, was finally concluded. According to the official report, the investigation lasted for 469 days, of which the investigators spent sixty days travelling "by horse and boat" and covering the distance of 5,146 *li* (c. 2,139 km), or approximately 85 *li* (35.3 km) per day. These figures were recorded in the case record, which eventually found its way into the early Western Han collection of doubtful legal cases excavated by archaeologists from tomb no. 247, Zhangjiashan, Hubei Province.[60]

The case mentions the two common modes of transportation in the early Chinese empires, overland and riverine. The latter was particularly important in the south, where a dense web of

[60] *Ernian lüling yu Zouyanshu*, 364, slips 127-128; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1336-1337.

rivers and lakes provided the ideal environment for water communications.[61] That the investigating officials found it possible to cover an impressive distance of over 2,000 km and that throughout their travels they maintained a rather high speed of 35 km a day (presumably they had to progress much faster on some days to achieve this average) suggest that they relied on a relatively advanced transportation infrastructure. On another occasion when a similar record is available, it took 51 days for two county officials, a magistrate (*ling* 令) and a commandant (*wei* 尉), to travel 400 *li* (ca. 166.5 km) on an inspection tour, suggesting a much less impressive speed of some 3.3 km a day.[62] We do not know if this was due to the duties they had to carry out along the way, to the poor roads and other travel infrastructure in the recently conquered region to the south of Middle Yangzi, or to both.

Some state servicemen were expected to travel at an extremely fast pace. The early Western Han "Statutes on the forwarding of documents" (*Xing shu lü* 行書律) required foot couriers to travel 200 *li* (c. 83.2 km) in twenty-four hours.[63] This norm likely derived from the Qin statute of the same title, fragments of which are included in the collection of legal documents excavated at Shuihudi and that acquired by the Yuelu Academy.[64] Yet greater speeds, up to 1,000 *li* (416 km) in twenty-four hours, could be achieved by mounted couriers delivering particularly important official communications such as the reports on major military threats at the frontier.[65]

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[61] For a recent overview of water transportation routes in the Yangzi basin during the Warring States period, see Liu Yutang 劉玉堂 and Yuan Chunfu 袁純富, *Chu guo jiaotong yanjiu* 楚國交通研究 [*A study of the transportation in the state of Chu*] (Wuhan: Hubei jiaoyu, 2012), 171-185.

[62] *Liye Qin jiandu*, vol. 2, 37-38, tablet 9-25

[63] *Ernian lüling yu Zouyanshu*, 203, slip 273; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 740-741.

[64] *Shuihudi*, 61, slips 183-185; *Yuelu shuyuan cang Qin jian*, vol. 4, 131-133, slips 192-197.

[65] See Wang Zijin, *Qin Han jiaotong shi gao*, 263.

This section discusses the physical infrastructure that made such fast moves possible along with the larger number of slower ones. The transportation network in the emerging empire was unevenly distributed in geographic terms. The cheapest, more efficient waterborne routes were concentrated in its southern part, where the Yangzi River and its tributaries provided natural conduits for transportation. As discussed in Chapter 2, access to this network was determinant for the success of Qin campaigns against the state of Chu in the third century BCE, as troops and supplies could be conveniently shipped down the Yangzi's major northern tributary, the Han River, and, following the annexation of the Sichuan basin, along the Yangzi itself. In the north, on the other hand, heavy state investment was required to construct roads for overland transportation, which were also important for connecting the empire's new possessions in the Yangzi basin to its core in the north. Imperial statutes such as the "On the forwarding of documents" reflect the northern situation by exclusively focusing on land transportation, while the available record from the south reveals the key role of riverine routes.

Apart from the construction and maintenance of transportation routes, moving goods and people required the provisioning of security, accommodation, and means of transportation. To these ends, facilities, resources, and personnel had to be deployed outside the nodes of state power in commanderies, the garrisoned, fortified towns used as the seats of Qin administration. Construction and operation of the infrastructure of geographic mobility were the key activities by which the state engaged with territories and people beyond the loci of its permanent strong presence. Excavated Qin maps suggest that even in the area located relatively close to but still outside the densely populated core in the lower Wei River basin, territorial control focused on the locations of resource extraction, guarded checkpoints, and shipment routes (see below).

2.1. Transportation routes

Overland transportation

The impact of the state on the transportation network was the most pronounced in overland transportation. Starting from the late fourth century BCE, the Qin government embarked on a road building program that improved interregional connectivity and facilitated ongoing conquests and provisioning of enclaves of state presence in the occupied territories. Investment in road building accelerated in the wake of the conquest of the Great Plain, Shandong, and large parts of the Yangzi basin at the end of the Warring States period. A very rough estimate of the lengths of the Qin imperial highways (*chidao* 馳道) yielded a total figure of some 6,800 kilometers.[66] By the end of the Eastern Han period, the total length of specially made roads is estimated at over 35,000 kilometers (see Map 5.1).[67]

Transmitted sources attribute this construction frenzy to the whims of the First Emperor. However it may be safely assumed that the imperial highways network utilized much of the already existing transportation infrastructure.[68] As mentioned previously, the consolidation of the overland transportation routes in continental East Asia into a single network was already attempted at the

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[66] Derk Bodde, "The State and Empire of Ch'in," in Twitchett and Fairbank, eds., *The Cambridge History of China*, vol. 1: *The Ch'in and Han Empires*, 61.

[67] Colin Ronan and Joseph Needham, *The Shorter Science and Civilisation in China. An Abridgement of Joseph Needham's Original Text*, vol. 5: *The First Section of Volume IV, Part 3; The Final Section of Volume IV, Part 2 of the Major Series* (Cambridge: Cambridge University Press, 1995), 1.

[68] On the pre-unification highways in China, see, for example, Shi Nianhai 史念海, "Chunqiu yiqian de jiaotong daolu" 春秋以前的交通道路 [Transportation routes before the Spring and Autumn period], *Zhongguo lishi dili luncong* 3 (1990): 5-37; and Shi Nianhai, "Zhanguo shiqi de jiaotong daolu" 戰國時期的交通道路 [Transportation routes during the Warring States period], *Zhongguo lishi dili luncong* 4 (1991): 19-57. For a particular example of a highway allegedly constructed under the First Emperor that was already functional in the Warring States period, see Wang Zijin, *Qin Han jiaotong shi gao*, 28. For the use of the Warring States road network during the Qin imperial period, see Tsuruma, *Shin teikoku no keisei to chiiki*, 70-71; and Sanft, *Communication and Cooperation in Early Imperial China*, 105.

beginning of the Western Zhou period as part of the massive colonization program. Some of these routes probably already functioned in the pre-Zhou periods, such as the trunk road along the eastern slope of the Taihang Mountains that connected the Zhou capitals in the Wei and Luo River basins to the northern part of the Great Plain where the regional state of Yan became the major dynamo of northward expansion. Others, such as the two roads leading from the Fen River valley to modern Hebei across the Taihang Mountains, are recorded in the Warring States era but might have been in use considerably earlier.[69]

Highways and other trunk roads crowned the extensive system of regional and local transportation routes that passed almost unmentioned in the traditional sources but are often referred to in the excavated legal and administrative documents. These roads varied enormously in terms of engineering sophistication and surface quality. The hierarchy of roads partly reflected the state-sponsored social hierarchy, with the use of the best roads and lanes reserved for the emperor and high-ranked officials. At the same time, from the perspective of the state rulers and bureaucrats, roads were fundamentally designed to serve state goals of military control, transportation of tax and tribute goods, and transfer of the labor force.

The earliest recorded road-building project initiated by the Qin state was the route connecting the Wei River basin to the Chengdu Plain, known as the "Road of Shu" (*Shu dao* 蜀道). One of its earliest sections, the "Stone Ox Road" (*shi niu dao* 石牛道, also known as the "Road of Golden Ox", *jin niu dao* 金牛道), was commenced under King Hui 惠王 of Qin (338–311 BCE) in the run-up to the annexation of Sichuan. The road provided an invasion route for the

[69] For a discussion of the communication and transportation routes that connected the Western Zhou core in the Wei and Luo River basins to the regional states and allies in Shandong, in the north of the Great Plain, and in the Han and Yangzi River valleys, see Li Feng, *Landscape and Power*, 300-342, esp. pp. 332-335 for the roads in the Taihang Mountains area mentioned here.

Qin armies in 316 BCE and was pivotal for subsequent colonization schemes in Sichuan (see Chapters 1 and 2). The fourth-century CE source that relates the story of this road does not provide much information on its route or engineering features, but its strategic significance suggests that the road belonged to the highway type.[70]

Extensive archaeological excavations (as of 2017, 313 relevant sites have been reported for Shaanxi Province alone) recently allowed for a relatively detailed reconstruction. The road started at or near the Qin capital Xianyang and ran westward toward the present-day city of Baoji 寶雞市 before crossing the Qinling Mountains toward Hanzhong, whence it proceeded to Chengdu. During Han times, the Road of Shu offered at least four alternative routes across the Qinling Mountains and three routes between Hanzhong and Chengdu.[71] Some of these routes, such as the Baoxie 褒斜 transportation corridor, are known to have been developed under the Han.[72] It seems reasonable to assume that the Qin authorities originally invested in the improvement and construction of just one continuous arterial road. People were crossing the Qinling Mountains in both directions long before the Qin conquest of Sichuan, so the Qin road planners and engineers

[70] The story of the "Stone Ox Road" is found in the mid-fourth century CE *Account of the States to the South of Mount Hua* (*Huayang guo zhi* 華陽國志) composed by the Eastern Jin (317–420) historian Chang Qu 常璩 (291–361), who probably derived information from earlier written records and/or local oral ore, see *Huayuang guo zhi*, 3.26-28. For the surviving material and archaeological evidence for this road, see Sage, *Ancient Sichuan*, 108-110. The tentative route of the road is mapped in *Zhongguo lishi dituji*, vol. 1, 43-44. In modern historiography, this road is usually discussed along with other Qin highways, see, for example, Wang Zijin, *Qin Han jiaotong shi gao*, 30.

[71] See Zhao Jing 趙靜, *Shaanxi Qin Shu gudao yichan* 陝西秦蜀古道遺產 [*The remains of the ancient Qin road to Shu in Shaanxi Province*] (Xi'an: San Qin, 2015); and Shaanxi sheng kaogu yanjiuyuan Qin Han kaogu yanjiushi, "2008–2017 nian Shaanxi Qin Han kaogu zongshu," 99.

[72] This ambitious transportation scheme was designed and constructed under Emperor Wu (141–87 BCE) in order to facilitate grain shipments from the Nanyang Basin, which at that time was emerging as one of the most productive agricultural regions of the empire, to the imperial capital Chang'an and its environs. See *Shiji*, 29.1411. According to the *Shiji* account, the road was eventually accomplished after enormous expenditure of labor, but it proved of little use for grain shipment.

were probably making use of the existing roads, byways, and pathways, as in the case of other imperial highways.

Road building assumed unprecedented scale during the ten years of King Zheng's reign as the First Emperor (221–210 BCE). According to the *Shiji*, an order initiating the empire-wide campaign of highway construction coincided with the first of the imperial progresses in 220 BCE.[73] Construction accelerated under the First Emperor's successor, the Second Emperor (210–207 BCE).[74] These were the first ancient Chinese roads for which a more or less detailed technical description survives. According to the *Hanshu* biography of the early Western Han scholar Jia Shan 賈山, the roads "reached Yan and Qi in the East and all the way to Wu and Chu in the South, they passed over streams and lakes and terminated not before reaching the terraces overlooking the sea depths. The roads were fifty paces (c. 69 m) wide, and trees were planted three *zhang* (c. 7 meters) apart along their sides. Thick [walls] were erected alongside [the central lane], and metal hammers [were applied to ram the soil in walls] serving to conceal [travelers on the roads]. Trees planted [along the road] were pines."[75]

Records from the Western Han period describe the imperial highways divided into three lanes, the central of which was reserved for the emperor, while side lanes were used by specially authorized travelers such as regional princes, envoys, and some privileged individuals.[76] Ordinary

[73] *Shiji*, 6.241.

[74] *Shiji*, 15.757; 87.2553.

[75] *Hanshu*, 51.2328. For a translation and discussion of this passage, see Joseph Needham, Wang Ling, and Lu Gwei-djen, *Science and Civilization in China*, vol. 4: *Physics and Physical Technology*, part III: *Civil Engineering and Nautics* (Cambridge: Cambridge University Press, 1971), 7.

[76] A Western Han imperial edict outlines the legal privileges of the "king's staff" holders, the elderly individuals who had reached seventy years of age. Among other things, they were allowed to travel on the side lanes (*pangdao* 旁道) of highways, suggesting such access was not allowed to the general populace. See Gansu sheng bowuguan 甘肅省博

people were not allowed to use the highways, however, by the second half of the Western Han period, the ban was falling into disuse.[77]

Archaeological study of the surviving sections of Qin and Han imperial highways suggests the construction involved considerable investment of labor and resources. One section excavated in the 1980's probably belonged to the so-called Sanchuan 三川 Highway connecting the capital region in the Wei River valley to Luoyang, the lower Yellow River, and Shandong.[78] This road was already used during the Western Zhou period when it had two alternative routes.[79] Another two sections were discovered in the vicinity of the Qin capital Xianyang.[80] All these sections are 45–50 meters wide with the packed-earth roadbeds 5–15 cm thick. At some excavated sections, the number of packed-earth layers is as much as four (see Illustration 5.1),[81] which, some scholars

物館, Zhongguo kexueyuan kaogu yanjiusuo 中國科學院考古研究所, eds., *Wuwei Han jian* 武威漢簡 [*Han slips from Wuwei*] (Beijing: Wenwu, 1964), 140-147, slips 1-10.

[77] See, for example, Ma Biao, *Shin teikoku no ryōdo keiei*, 134-135; Wang Zijin, "Zhongguo gudai jiaotong xitong de tezheng – yi Qin Han wenwu ziliao wei zhongxin" 中國古代交通系統的特徵--以秦漢文物資料為中心 [Characteristics of the ancient Chinese transportation system – With a focus on the material evidence from the Qin and Han periods], *Shehui kexue* 社會科學 7 (2009): 132-140, esp. 132-134.

[78] Hu Dejing 胡德經, "Liangjing gudao kaobian" 兩京古道考辨 [An analysis of ancient roads in the two capitals], *Shixue yuekan* 史學月刊 2 (1986): 3-9.

[79] See Li Feng, *Landscape and Power*, 60-61.

[80] Sun Derun 孫德潤, Li Loucheng 李縷成, and Ma Jianxi 馬建熙, "Weihe san qiao chutan" 渭河三橋初探 [A preliminary analysis of the three bridges on the Wei River], in *Kaogu yu wenwu* bianjibu 《考古與文物》編輯部, ed., *Shaanxi sheng kaogu xuehui diyi jie nianhui lunwenji* 陝西省考古學會第一屆年會論文集 [*Proceedings of the first annual conference of the Shaanxi Province archaeological society*] (Beijing: Kaogu yu wenwu, 1983), 1-11; and Shaanxi sheng kaogu yanjiusuo 陝西省考古研究所, *Qin du Xianyang kaogu baogao* 秦都咸陽考古報告 [*Archaeological report on the excavation of the Qin capital Xianyang*] (Beijing: Kexue, 2004), 212. For a discussion, see Wang Zijin, "Zhongguo gudai jiaotong xitong," 132-133.

[81] Shaanxi sheng kaogu yanjiuyuan Qin Han kaogu yanjiushi, "2008–2017 nian Shaanxi Qin Han kaogu zongshu," 98. Source of the illustration: Shaanxi sheng kaogu yanjiuyuan Qin Han kaogu yanjiushi, "2008–2017 nian Shaanxi Qin Han kaogu zongshu," 98-99.

argue, was a standard Qin technology for highway-building.[82] Such a structure rendered road elastic and more resistant to deformation due do temperature, unequal drainage, and frost fissures than the contemporary stone-paved Roman roads, which were considerably thicker and more rigid.[83] The excavated sections of Qin highways were flanked by drainage ditches and feature elevations in the middle part of the road, which some scholars interpret as the remains of the walls the separating central lane from the side lanes.[84]

Illustration 5.1: The Qin Straight Road at Fu County 富縣, Shaanxi Province: excavated roadbed (left) and the modern view of the road (right)

[82] Zhang Zaiming 張在明, Li Zengshe 李增社, Jiang Jianai 姜家乃, Wang Qian 王謙, and Liu Yanbo 劉彥博, "2+2=4: Qin zhidao faxian daolu si die ceng yu dong xi xian zhi zheng – 2010 nian Qin zhidao kaogu shouhuo zhiyi" 2+2=4：秦直道發現道路四疊層與東西線之爭--2010 年秦直道考古收穫之一 [2+2=4: discovery of the four-layered roadbed of the Qin Straight Road and the dispute about the eastern and western routes of the road: one of the achievements of the archaeological excavation of the Qin Straight Road in 2010], *Zhongguo wenwu bao* 中國文物報 2011.08.12: 1-5.

[83] Ronan and Needham, *The Shorter Science and Civilisation in China*, vol. 5, 1-2.

[84] Hu Dejing, "Liangjing gudao kaobian," 3; Ma Biao, *Shin teikoku no ryōdo keiei*, 139-140.

The geographic reach of the Qin highways is usually reconstructed on the basis of the *Shiji* accounts of emperors' progresses.[85] However, with the exception of the first progress in 220 BCE, during which the emperor traveled westwards to Longxi 隴西 and Beidi 北地 commanderies and ordered the construction or improvement (*zhi* 治) of a *chidao* highway, other reports on imperial progresses do not mention such orders. Moreover, in the case of the first progress, road building was carried out after the emperor's journey was already completed.[86] With the exception of the Road of Shu and the Straight Road (*zhidao*), which connected the Wei River basin to the Qin garrisons to the north of the Yellow River's Ordos Loop and was constructed from 212 BCE on, no other Qin highway is mentioned in the transmitted sources. It is uncertain to what extent road building was synchronized with the emperor's progresses.[87]

The Straight Road is by far the best-studied part of the Qin network of highways. Its direction has been debated by many generations of scholars, with some arguing for the "western" route, namely that the road connected the Qin capital to the Longxi Commandery in the west (see Map 3.4); while others advocating the "eastern" route hypothesis, according to which the road ran

[85] Five such progresses across the newly unified realm were made by the First Emperor in 220, 219, 218, 215, and 211–210 BCE. His son, the Second Emperor, also made one tour in 209 BCE. For a discussion of ritual and political significance as well as the routes of these progresses, see Sanft, *Communication and Cooperation*, 77-99. For the maps of the Qin highway network based on the *Shiji* records of the First Emperor's progresses, see, for example, Wang Zijin, *Qin Han jiaotong shi gao*, 29; *Zhongguo gudai daolu jiaotong shi*, 82; and Tsuruma, *Shin teikoku no keisei*, 62.

[86] The entry for the twenty-seventh year of the First Emperor starts with an outline of the route of the westward progress and concludes with the statement that "in the same year, one grade of rank was granted [to all subjects], and the highway was constructed" 是歲，賜爵一級，治馳道, see *Shiji*, 6.241.

[87] For the construction of the Straight Road, see *Shiji*, 6.256. This record lacks details concerning the road's route, which was reconstructed on the basis of archaeological exploration. For an extensive discussion of the road and its significance, see Sanft, *Communication and Cooperation*, 107-121.

northward across the Ordos Loop.[88] While the issue remains unresolved, recent archaeological excavations of the Straight Road attest to the importance of the "eastern" route, although the simultaneous existence of another route cannot be ruled out (see Map 5.1).[89]

According to a recent report, archaeologists already surveyed some 150 kilometers of this almost 1,000-kilometer-long road (see Illustration 5.1).[90] Apart from the roadbed itself, the survey revealed extensive infrastructure, which included building remains, strengthened river embankments, and traces of bridges.[91] Building remains have been interpreted as representing beacon towers, fortified passes, and towns founded along the route.[92] The latter may have been part of the major settlement campaign carried out by the Qin authorities in the wake of the conquest of the Ordos Loop, which involved the establishment of 44 new counties in the occupied lands.[93]

As in the case of other Qin highways, much of the Straight Road was built in the region with a long history of settlement, which would necessarily have some roads, and it was argued that

[88] For a recent survey of this debate, see Sun Wenbo, "Qin zhidao de lishixue tansuo," 56-58.

[89] The archaeological team in charge of the Straight Road excavation believes that the new evidence proves beyond doubt that the road ran in a south-north direction across the Ordos Loop, this subscribing to the "eastern route" hypothesis. See Zhang Zaiming et al., "2+2=4: Qin zhidao faxian daolu si die ceng," 1-5. This view is adopted by most Western scholars, see, for example Sanft, *Communication and Cooperation*, 113-121; Nylan, "The Power of Highway Networks," 34.

[90] Shaanxi sheng kaogu yanjiuyuan Qin Han kaogu yanjiushi, "2008–2017 nian Shaanxi Qin Han kaogu zongshu," 98.

[91] Shaanxi sheng kaogu yanjiuyuan Qin zhidao kaogudui 陝西省考古研究院秦直道考古隊, "Shaanxi Fuxian Qin zhidao kaogu qude tupoxing chengguo" 陝西富縣秦直道考古取得突破性成果 [The breakthrough achievements in the archaeological study of the Qin Straight Road in the Fu County, Shaanxi Province], *Zhongguo wenwu bao*, http://www.wenbao.net/wbw_admin/news_view.asp?newsid=1797, accessed July 5, 2019.

[92] Gao Ziqi 高子期 and Zhou Xiaolu 周曉陸, "Qin zhidao jianzhu tanjiu" 秦直道建築探究 [A study of the building remains along the Straight Road of Qin], *Xibei daxue xuebao (zhexue shehui kexue ban)* 西北大學學報（哲學社會科學版） 6 (2015): 21-26.

[93] For this settlement campaign, see *Shiji*, 6.253; 110.2885-2886.

some of these roads were the basis for the construction of the Straight Road.[94] Other scholars have pointed out that transportation routes alternative to and arguably more convenient than the Straight Road were available, and that the construction of the latter pursued ideological as much as, if not more than connectivity purposes.[95]

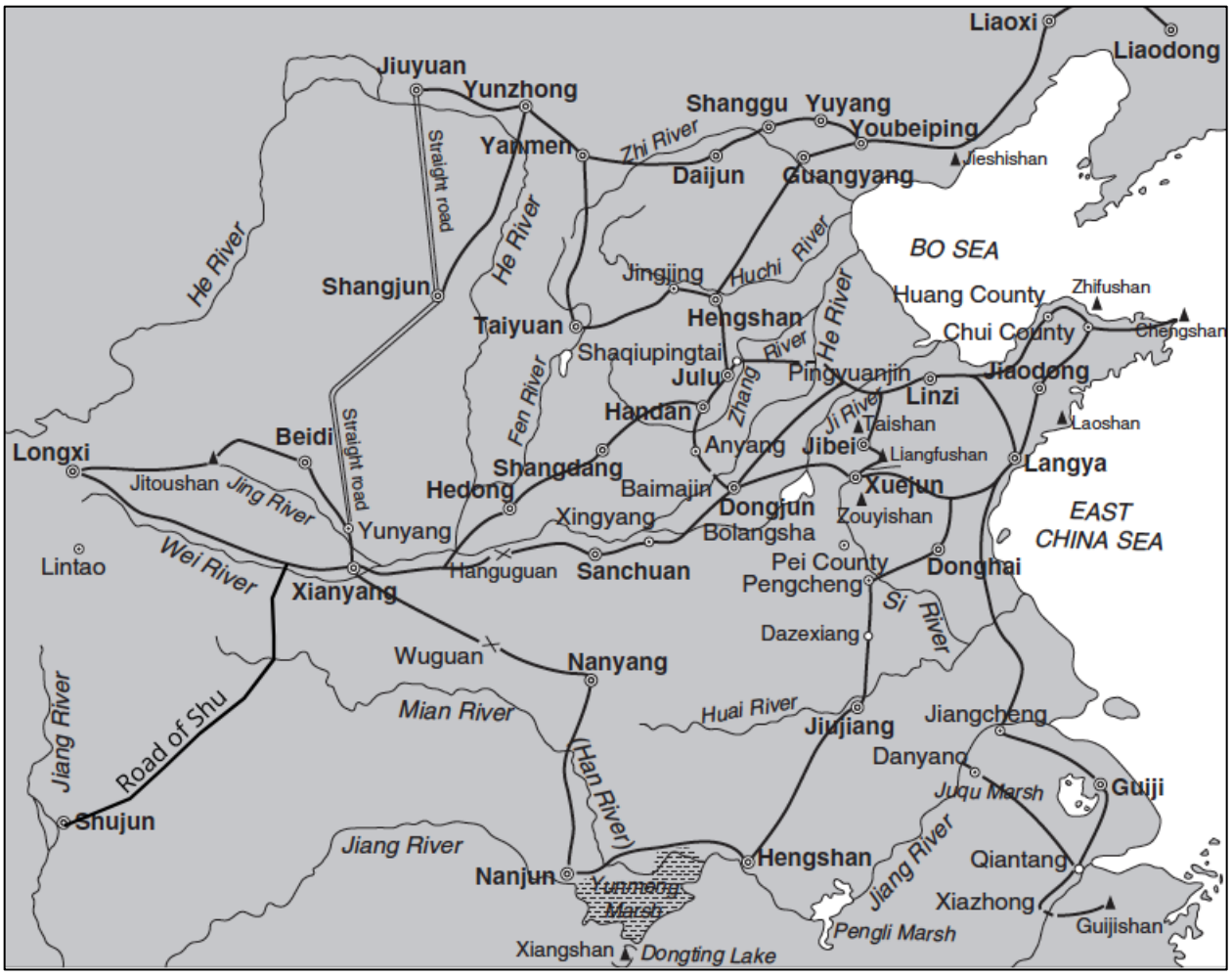
Much less information is available about other Qin highways. Legal fragments excavated from the Qin tomb at Longgang, an area that belonged to the Nan Commandery, attest to the existence of a highway in the mid-Yangzi region, which can, but does not necessarily need to be related to the First Emperor's second progress in 219 BCE when he visited Nan Commandery.[96] Further archaeological studies of the highway network in the Qin Empire will help to clarify to what degree its actual extent corresponded to the conventional reconstruction based on the transmitted written sources (see Map 5.1).[97]

[94] See, for example, Li Zhongli 李仲立, "Qin zhidao xinlun" 秦直道新論 [A new study of the Straight Road of Qin], *Xibei shidi* 西北史地 4 (1997): 1-6; Sun Wenbo, "Qin zhidao de lishixue tansuo," 58.

[95] Sanft, *Communication and Cooperation*, 113.

[96] *Shiji*, 6.248.

[97] Nylan, "The Power of Highway Networks," 34, with some modifications. This map reflects the highway network of both the Qin and Han empires. Much of it was constructed in the Warring States and imperial Qin.



Map 5.1: The imperial highway network

In spite of some uncertainty about their geographical reach, the imperial highways almost certainly performed important logistical, administrative, and economic functions by connecting the regions of the newly founded empire. As noticed previously, some of these roads improved or duplicated the already existing communication routes, while others followed the river courses that probably offered more favorable transportation conditions than the overland roads. This said, highways likely played an important role in the overland shipment of tax goods and other bulky materials for the state's use. According to the Qin statute, loaded carts were expected to progress at the speed of 60 *li* (c. 25 km) per day, and empty carts and foot porters had to cover, respectively,

80 and 100 *li* (c. 33.3 km and c. 41.5 km).[98] Such speeds were possible only on the roads with advanced surface engineering such as that revealed by the excavated segments of imperial highways.[99]

Newly published evidence also makes it clear that the highways were not the only type of quality roads in the Qin Empire. An ordinance from the Yuelu Academy collection mentions "high-speed roads" (*chong dao* 衝道) that were reserved for high-ranked officials travelling by conveyance. Foot travelers were not allowed to use these roads. Exception was made for the parties of labor and military conscripts and probably also for convicts escorted by the officials to their places of service.[100] Our knowledge of this road system is fully owed to a short and fragmentary text, and its geographic scale and other features remain unclear.

The state involvement in the construction and maintenance of land transportation routes extended far beyond the loose highway network. The late fourth century BCE ordinance from Haojiaping conveys detailed prescriptions on the maintenance of the local transportation system, for which purpose annual labor levies were called. The statute prescribed "great clearing of the roads" (*da chu dao* 大除道) in the ninth lunar month (late September – October) followed by construction and repairing of bridges and fords in the tenth month (late October – November).

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[98] *Yuelu shuyuan cang Qin jian*, vol. 4, 150, slip 248 (1394).

[99] The best available model of geospatial mobility in the ancient world, the Stanford Geospatial Network Model of the Roman World ORBIS, builds on the assumption that an oxcart travelled at the average speed of 12 km/day, and foot porter at 30 km/day. See http://orbis.stanford.edu/, accessed April 9, 2018. These speeds are considerably lower than those prescribed by the Qin statute, suggesting that the latter implied some very favorable travel conditions, which in the case of overland transportation most likely refers to the quality road surface. Even so, the travel speed requirements set up in the Qin statutes were obviously considered exorbitant already in the beginning of the Western Han period, and were revised downward in the Han "Statutes on labor service" excavated from the Zhangjiashan tomb, which demands that loaded carts, empty carts, and foot porters travel, accordingly 50 (20.8 km), 70 (29 km), and 80 *li* (33.3 km) per day. See *Ernian lüling yu Zouyanshu*, 248-250, slips 411-415; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 902-903.

[100] *Yuelu shuyuan cang Qin jian*, vol. 5, 195-196, slips 293-294.

While maintenance was scheduled for the agricultural offseason, the ordinance also emphasized that whenever roads were becoming impassable due to "holes and bad places" (*xian bai* 陷敗), repair was to be carried out immediately regardless of the season.[101]

That these prescriptions were taken seriously by the Qin local government in northern Sichuan is suggested by the inscription on the back side of the same tablet, which records the names of eight individuals who failed to participate in works and the number of workdays they owed. The list was drafted in the twelfth month of the fourth year of King Wu 武王 of Qin (307 BCE), probably after the completion of maintenance works in the ninth and tenth months.[102] Another inscribed wooden tablet excavated from the same tomb specifies monetary penalties for the evasion of duty. The inscription is poorly preserved, but the extant fragments record that a number of households failed to join the works on a certain Ran Road 然道 and were sentenced to a combined fine of 66 cash, assessed on per day basis.[103]

Some hundred years later and several hundred kilometers away, in early October 213 BCE, labor levies in Erchun District of Qianling County were likewise engaged in road maintenance. Insofar as the subjects conscripted to road works were receiving food rations from the state granaries, such conscription was possibly viewed not only as an onerous obligation but also as a

[101] *Qin jiandu heji*, vol. 4, 227-237; Hulsewé, *Remnants*, 211-215.

[102] The meaning of the inscription on the back side of the tablet was debated for a long time, with some scholars arguing that this was the list of days on which construction and maintenance works were prohibited or considered inauspicious. Editors of the most recent comprehensive collection of excavated Qin documents support Zhang Jinguang's 張金光 opinion that the inscription lists the names of individuals who did not participate in road works, and the number of days on which they failed to fulfill their labor duty. See Zhang Jinguang, *Qin zhi yanjiu*, 148; *Qin jiandu heji*, vol. 4, 237, n. 23. This interpretation is moreover supported by the text on another tablet excavated from the same tomb, which clearly deals with fines imposed on those who did not join road works for a certain number of days (see below).

[103] *Qin jiandu heji*, vol. 4, 238.

welcomed contribution to a farmer's subsistence during the slack season.[104] When the labor of local residents was deemed insufficient, convict labor gangs were brought. Road maintenance (*chu dao* 除道) was one of the tasks frequently recorded in the Qianling registers of convict laborers.[105]

Qin lawgivers emphasized that the road network was primarily designed to serve the needs of the local society:[106]

> 補繕邑院、除田道橋、穿汲<波（陂）>池、漸（斬）奴苑，皆縣黔首利殹（也）。
>
> Repairing settlement walls, clearing out roads in the fields and bridges, dredging embanked ponds, and draining stagnant backwaters from the [imperial] parks, all these are [the projects] that benefit common people residing in counties.

Since these works were considered a communal duty, they were subject to a special legal regime. Individuals exempted from general labor services were nevertheless expected to contribute to such projects. Interestingly, prominent transportation routes such as the roads used by the post relay (*youdao* 郵道) and imperial highways (*chidao*) were explicitly contrasted to the local "roads in the fields" that "benefit common people," suggesting ordinary subjects were not permitted access to these arterial roads.[107] The Qin government saw its contribution to the physical mobility of its subjects in improvements to local connectivity, while interregional transportation routes were reserved for state use and primarily served the goals of military logistics, official communication, and the supplying of state-sponsored population centers.

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[104] *Liye Qin jiandu*, vol. 2, 251, tablet 9-1079+9-1520; 405, tablet 9-2015.

[105] See, for example, *Liye Qin jiandu*, vol. 1, 84-89, tablet 8-145; 121, tablet 8-244; vol. 2, 455-463, tablet 9-2289.

[106] *Yuelu shuyuan cang Qin jian*, vol. 4, 118, slip 151.

[107] *Yuelu shuyuan cang Qin jian*, vol. 4, 118, slips 152-153.

Riverine transportation

That the Qin legal statutes were primarily focused on the overland roads is reflective of the fact that the other key mode of transportation, rivers, required much less state investment and was less susceptible to official regulation. Its prominence, especially in the Yangzi basin, is highlighted by local administrative documents that were concerned with transportation by water much more than with overland traffic. Although the officials in Qianling County to the south of the Yangzi were not unfamiliar with land transportation, documents in the county's archive pay more attention to boats than oxcarts. In fact, almost all so far published documents that deal with the shipments of goods and materials are focused on riverine routes, as in the following example:[108]

廿七年三月丙午朔己酉，庫後敢言之：兵當輸內史，在貳春□□□□五石一鈞七斤，度用船六丈以上者四艘。謁令司空遣吏、船徒取，敢言之。☑（正）
三月辛亥，遷陵守丞敦狐告司空主，以律令從事。/……昭行
三月己酉水下九，佐赶以來。/釦手。☑（背）

Front side
Twenty-seventh year [of King Zheng, i.e. the First Emperor], in the third month, *bing-wu* being the first day of the month, on the day *ji-you* (April 18, 220 BCE), Hou, the Supervisor of the Arsenal, dares to report: Weapons have to be transported to the Authority of the Capital Region, and in Erchun [District]… five *shi* one *jun* and seven *jin* (c. 39.2 kg), [we] estimated that four boats are needed, each six *zhang* (c. 13.9 m) or longer. I request that the Controller of Works dispatches officials and laborers [to operate] the boats, [to be] received [by our office]. Dare to report this…

Back side
In the third month on the day *xin-hai*, Dunhu, the Provisional Vice-Magistrate, instructs the senior official at the office of the Controller of Works to proceed according to the statutes and ordinances. …Dispatched with Zhao.
In the third month on the day *ji-you* in the ninth hour (2:45–3:50pm), delivered by the Assistant Qin. / Drafted by Kou.

[108] *Liye Qin jiandu*, vol. 1, 341, tablet 8-1510.

It is hardly surprising that boats were a preferential means of transportation in Qianling County. The county town was located on the bank of the You River, the western tributary of the Yuan River, which via the Dongting Lake connected to the Yangzi Basin. The mountainous landscape hindered overland communication. The river system presented a natural solution for transportation and made possible the very Qin presence in the area. The county government maintained certain number of cargo boats, some of which were operated by the specialized Boat Office (*chuan guan* 船官),[109] and enlisted boatmen (*chuantu* 船徒) from among the convict laborers in the custody of the Controller of Works.[110] An early Western Han statute indicates that the state also employed specialized boat crews and appointed officials for the supervision and management of state-owned boats (*chuan sefu* 船嗇夫).[111]

The number of state-owned boats in Qianling cannot be established on the basis of available evidence. The largest number mentioned in the Liye documents is sixteen,[112] but it is unclear if the figure refers to the total number of boats in Qianling. The size of boats was far from uniform.[113] A boat leased out by the county Controller of Works to a tile trader was 3 *zhang* 3 *chi*

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[109] *Liye Qin jiandu*, vol. 1, 19, tablet 6-4.

[110] *Liye Qin jiandu*, vol. 1, 341, tablet 8-1510.

[111] *Ernian lüling yu Zouyanshu*, 92-93, slips 6-8; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 392-393. For a discussion of the organization of the state-managed water transportation, see Kim Byeong Joon 金秉駿, "Chūgoku kodai nanpō chiiki no suiun" 中国古代南方地域の水運 [Waterborne transport in the southern regions of ancient China], Fujita Katsuhisa and Matsubara Hironobu 松原弘宣, eds. *Higashi Ajia shutsudo shiryō to jōhō dentatsu* 東アジア出土資料と情報伝達 [*Excavated materials and communication of information in East Asia*] (Tokyo: Kyuko Shoin, 2011), 169-204.

[112] *Liye Qin jiandu*, vol. 1, 398, tablet 8-1836.

[113] For a discussion of the structural characteristics of boats during the pre-imperial and early imperial eras, which primalily focuses on the warships, see Needham, Wang, and Lu, *Science and Civilization in China*, vol. 4: *Physics and Physical Technology*, part III: *Civil Engineering and Nautics*, 440-449.

(c. 7.6 m), much smaller than the boats required by the Arsenal Bailiff for the transportation of weapons.[114] By my estimate, a six-*zhang*-long (c. 13.9 m) boat had the capacity of c. 26 cubic meters and could have carried the maximum of some 36 tons of grain, although the actual carrying capacity should have been considerably lower.[115] When the Warring States strategist and diplomat Zhang Yi 張儀 threatened the King of Chu with the invasion of the Qin army, he mentioned river boats carrying each fifty warriors with three months' grain supply (some 5 tons of grain[116]), he was likely referring to the boats approximately the size mentioned in the Liye documents.[117]

Numbers scattered across the transmitted sources allow for a tentative efficiency comparison of overland and riverine transportation in the early Chinese empires. The *Shiji* biographies of the Western Han princely houses of Huainan 淮南 and Hengshan 衡山 quote a lengthy speech by an advisor to the last prince of Huainan. He mentions that "the load [carried] by one boat is equal to that [carried] by several tens of carts in the middle states" 一船之載當中國數十兩車.[118] A study of the fourth-century BCE bronze tallies that exempted trading caravans of Qi,

[114] *Liye Qin jiandu*, vol. 1, 72-76, tablet 8-135.

[115] This calculation is based on the conservative assumption that takes length/beam ratio as 5:1, while modern recommendations for small to medium size boats vary between 2:1 and 5:1, see, for example, http://marine.marsh-design.com/content/length-beam-ratio, accessed April 10, 2018. A boat's depth is usually somewhat smaller than its beam, so my calculation works from the assumption of depth = 2 meters. Prism coefficient = 0.6 is applied, see https://www.sailboat-cruising.com/prismatic-coefficient.html, accessed April 10, 2018. This results in the following equation: C = L x B x D x 0.6, where C = capacity, L = length, B = beam, D = depth. In our case, C = 13.9 x 2.8 x 2 x 0.6 = 26.7 cubic meters. For millet grain, this would translate into c. 36.5 tons, see https://www.aqua-calc.com/calculate/volume-to-weight, accessed April 10, 2018.

[116] This figure is based on the assumption that each warrior was receiving a grain ration of at least two *shi* (c. 40 liters) of grain per month that, according to Qin law, was issued to male hard-labor convicts, see *Shuihudi*, 33-34, slips 55-56; Hulsewé, *Remnants*, 32-33. For fifty soldiers, three months' ration would amount to 300 *shi* = 6,000 liters of grain, translating into c. 4.7 tons, assuming that the rations were issued in millet.

[117] *Shiji*, 70.2290.

[118] *Shiji*, 118.3087.

the Lord of E 鄂君啟, from toll duties in the state of Chu (for more on these tallies, see below) suggests that a boat carried twelve times as much goods as a cart.[119]

The above-mentioned conversation between the Qin strategist Zhang Yi and the King of Chu provides a rare reference to the travel speed of boats. According to Zhang Yi, the Qin military boats progressing from Sichuan down the Yangzi River to the Chu capital area at the confluence of the Yangzi and Han Rivers were capable of covering more than 300 *li* (c. 124.5 km) per day.[120] Here the velocity of Qin river-borne vessels could have been exaggerated to impress the interlocutor. The following tables summarize the more detailed and reliable data on the speed of riverine transportation during the early and middle imperial periods.[121]

Table 5.1: Riverine transportation speed (per day) in the Qin Empire: Major rivers (Yangzi, Han, Yuan)

		Upstream	**Downstream**
Empty	Summer	100 *li* (c. 41.5 km)	160 *li* (c. 66.4 km)
	Spring/Fall	85 *li* (c. 35.3 km)	140 *li* (c. 58 km)
	Winter	70 *li* (c. 29 km)	120 *li* (c. 49.8 km)

[119] Liu Hehui 劉和惠, *Chu wenhua de dong jian* 楚文化的東漸 [*The eastward relocation of the Chu culture*] (Wuhan: Hubei jiaoyu, 1995), 130-139.

[120] *Shiji*, 70.2290.

[121] The numbers for the Qin are from the "distance list" manuscript (*licheng jiance* 里程簡冊) from the Peking University collection of Qin documents, which is discussed at more length in the third section of this chapter. For the publication of this text, see Yan Changgui, "Beijing daxue cang shuilu licheng jiance suojian jiaotong luxian kao" 北京大學藏水陸里程簡冊所見交通路線考 [A study of transportation routes in the travel distance manual for waterborne and overland routes from the Peking University collection], in *Qin jiandu dili yanjiu* 秦簡牘地理研究 [*Geographical study of Qin documents on bamboo and wood*] (Wuhan: Wuhan daxue chubanshe, 2017), 232-285, esp. 233. The numbers for the Tang are provided in Li Linfu (683–753), *Tang liudian* 唐六典 [*The six codices of Tang*] (Beijing: Zhonghua, 1992), 3.79-81.

Loaded	Summer	80 *li* (c. 33.2 km)	140 *li* (c. 58 km)
	Spring/Fall	70 *li* (c. 29 km)	120 *li* (c. 49.8 km)
	Winter	60 *li* (c. 25 km)	100 *li* (c. 41.5 km)

Table 5.2: Riverine transportation speed (per day) in the Qin Empire: Minor rivers

		Upstream	**Downstream**
Empty	Summer	70 *li* (c. 29 km)	110 *li* (c. 45.7 km)
	Spring/Fall	50 *li* (c. 20.8 km)	80 *li* (c. 33.2 km)
	Winter	50 *li* (c. 20.8 km)	74 *li* (c. 30.7 km)
Loaded	Summer	60 *li* (c. 25 km)	80 *li* (c. 33.2 km)
	Spring/Fall	45 *li* (c. 18.7 km)	60 *li* (c. 25 km)
	Winter	40 *li* (c. 16.6 km)	53 *li* (c. 22 km)

Table 5.3: Riverine transportation speed (per day) during the Tang period (618–907 CE)

		Yellow River	**Yangzi**
Downstream		150 *li* (c. 79.5 km)	100 *li* (c. 53 km)
Upstream	Empty	40 *li* (c. 21.2 km)	50 *li* (c. 26.5 km)
	Loaded	30 *li* (c. 15.9 km)	40 *li* (c. 21.2 km)

The numbers for the Qin period refer to the Yangzi River; the major tributaries in its middle reaches, the Han and Yuan rivers; and unspecified minor tributaries. They should therefore primarily be compared with transportation speeds for the Yangzi basin in the Tang sources.[122] The

[122] Note that during the Tang one *li* was equivalent to 531 meters long, while the Qin and Han *li* equaled 416 meters.

average speed of downstream travel in the Qin manuscript is 54 km per day for the Yangzi River alone and 42.8 km per day if minor tributaries are included in the estimate. The average includes numbers both for empty and loaded boats. The former figure coincides almost exactly with the Tang one. For the upstream travel, the Qin averages are 35 km per day for empty boats on the Yangzi and 29.4 km per day if minor tributaries are included in the estimate. The latter number is close to the Tang figure of 26.5 km per day. For loaded boats traveling upstream, the average speed for the Qin period is 29 km per day and 24.5 km per day when minor tributaries are accounted for. Again, the latter number approximates the Tang figure of 21.2 km per day. Considering that conditions of riverine transportation did not radically change from the early to the middle imperial period, these numbers, provided by two independent sources, can be considered relatively reliable.[123]

Downstream travel speed compares favorably to the speed requirements for oxcarts in the Qin "Statutes on labor service," 25 km/day for loaded and 33.3 km/day for empty carts, especially considering that such travel speeds were likely to be achievable, if at all, only on particularly good roads such as imperial highways, which constituted a small part of the road network. Even so, these requirements were considered unrealistic already at the beginning of the Western Han period, resulting in their downward revision.[124] Upstream riverine travel, especially on the Yangzi River, could progress at almost the same if not higher speed than on the best of overland roads.

[123] That the Qin numbers are generally higher than the Tang possibly suggests that the Qin authorities were more inclined to maximizing their demands for the speed of official transportation than the succeeding imperial regimes.

[124] These standards were reduced from ca. 25 km/day for loaded carts, 33.3 km/day for empty carts, and 41.5 km/day for foot porters to, ca. 20.8, 29, and 33.3 km/day, respectively. See *Yuelu shuyuan cang Qin jian*, vol. 4, 150, slip 248 for the Qin numbers, and *Ernian lüling yu Zouyanshu*, 248, slip 412; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 902-903 for the early Western Han numbers.

Riverine travel had its geographic limitations and obstacles. On the Yangzi, in particular, upstream travel through the Three Gorges (Sanxia 三峽), stretching over 300 km along the middle reaches of the river, was so impractical that, some scholars argue, travelers from Sichuan to the Chu metropolitan regions at the confluence of the Yangzi and Han rivers probably preferred overland return routes.[125] On the Yellow River, a similar obstacle was presented by the Sanmenxia 三門峽 gorge. According to the mid-Western Han evidence, transporting grain supplies for the capital through these rapids resulted in substantial loss of cargo, and the 900 *li* (c. 373.5 km) travel could take as long six months, suggesting an average speed of only 5 *li* (c. 2 km) per day, a dramatic reduction from the numbers in Tables 5.1–5.3. Much of this time was probably spent reloading cargo from larger boats to smaller ones capable of passing the rapids, and waiting for the season when such passage was less risky. Construction of the circumventing canal under the Western Han emperor Wu (141–87 BCE) reportedly reduced the travel distance to 300 *li* (c. 124.5 km).[126]

In his study of the water transportation in ancient China, Kim Byeong Joon attempted quantification of comparative transportation efficiency per laborer involved in riverine and land transportation. Building upon the *Hanshu* number of 60,000 laborers employed in transporting 4 mln *hu* (c. 80 mln liters) of grain to Guanzhong from the eastern regions,[127] and on the arithmetical task from the Han mathematical manual *The Art of Reckoning in Nine Chapters* (*Suanshu jiuzhang* 算術九章) that mentions six men were needed to operate an oxcart carrying 25 *hu* (500 liters) of

[125] Liu Yutang, Yuan Chunfu, *Chu guo jiaotong yanjiu*, 172-173.

[126] *Shiji*, 29.1409-1410.

[127] *Hanshu*, 24A.1141.

grain,[128] he concluded that one man was effectively able to ship c. 66 *dou* (1,320 liters) by boat and only 4.1 *dou* (82 liters) by cart.[129]

A very rough estimate as it probably is, the resultant labor efficiency ratio of 16.5 : 1 for waterborne to land transportation in early imperial China highlights another rationale for the state's preference for riverine transportation when such was possible. As discussed in Chapter 2, labor levies, which were often called for transporting tax grain, presented a serious challenge for the agricultural economy, and the government was making conscious efforts to minimize the impact of such mobilizations. The enormous economy of labor in riverine transportation made it preferable even when concomitant advantage of speed was taken away. It also explains the legal focus on the efficiency of land rather than water transportation. The former had much worse efficiency ratio than the latter and was accordingly subject to more rigorous efficiency control.

While it is generally admitted that riverine transportation prevailed in the Yangzi basin, throughout the Warring States period, attempts were made to facilitate waterborne transportation in the north as well. The Honggou 鴻溝 Canal connected the basins of the Yellow and Huai Rivers. Other canals were constructed between the Yangzi and the southern tributaries of the Huai River. The *Shiji* account emphasizes the double benefit of such canals that made possible shipment of goods while at the same time providing water for irrigation.[130]

Seven maps on wooden boards excavated from the Qin tomb at Fangmatan 放馬灘 in Gansu Province feature almost exclusively riverine routes used for the shipment of local timber

[128] Li Jimin 李繼閔, ed. *Jiuzhang suanshu jiao zheng* 九章算術校證 [*The Art of Reckoning in Nine Chapters, Edited and Annotated*] (Xi'an: Shaanxi kexue jishu, 1993), 332-333.

[129] Kim Byeong Joon, "Chūgoku kodai nanpō chiiki no suiun," 174.

[130] *Shiji*, 29.1407.

resources along the tributaries of Wei and Jialing 嘉陵 rivers. Only one map has a symbol that was interpreted as a road.[131] Provided this interpretation is correct, this road allowed for an overland transportation of timber over the drainage divide of the Jialing and Wei Rivers. Then it could be shipped down the Wei River to the Qin capital Xianyang. Such riverine transportation schemes complemented by relatively short-distance overland legs that connected river basins were typical in the Warring States and early imperial periods, as illustrated by the case of grain shipment discussed in the third section of this chapter.

2.2. Infrastructure of accommodation and security

On August 9, 201 BCE, the next year after the foundation of the Han Empire, clerk Wu 武 of Xinqi 新郪 County, Huaiyang 淮陽 Commandery, departed the county town on a mission to "take measures against robbers and criminals" and never came back. As his superiors eventually discovered, he was murdered on the order of the county magistrate, a certain Xin 信, who had an old grudge against the clerk. Although being assassinated by the henchmen of one's own fellow official was probably quite extraordinary, the timing of the crime is telling. Journeys across the countryside were considered dangerous, and Xin calculated that disappearance of Wu would not cause much suspicion.[132]

[131] For the Fangmatan maps, see Gansu sheng wenwu kaogu yanjiusuo 甘肅省文物考古研究所, ed. *Tianshui Fangmatan Qin jian* 天水放馬滩秦簡 [*Qin documents from Fangmatan, Tianshui*] (Beijing: Zhonghua, 2009), 108-109 (transcription), 149-155 (images). For the discussion of the map symbols, particularly the one that is supposed to indicate a road, see Yong Jichun, *Tianshui Fangmatan mudu ditu yanjiu*, 92-104, esp. 95.

[132] *Ernian lüling yu Zouyanshu*, 354-359, slips 75-98; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1288-1304.

Although the years immediately in the wake of the war of Qin succession were a particularly turbulent time, travelers' security was always a concern in the early empires. To make geographical mobility possible, not only passable transportation routes but also an infrastructure of accommodation and security for people and goods had to be provided. Designing and creating such infrastructure presented an opportunity for the state to direct and control the physical mobility of subjects and flows of resources and goods.

An event calendar (*zhiri*) excavated from the tomb of a commandery official dated from late first century BCE provides a comprehensive survey of accommodation options available for a traveling state functionary, as summarized in the following table.[133]

Table 5.4: Accommodation options for a travelling official, late first century BCE

Accommodation type	Number of mentions	%
Conveyance lodge (*zhuan she* 傳舍)	37 (at 14 locations)	37%
Guard post (*ting* 亭)	28 (at 17 locations)	28%
Post relay station (*you* 郵, *zhi* 置)[134]	2	2%
District town (*xiang* 鄉)	2	2%
Official residence (*di* 邸)	1	1%
Unspecified housing (*zhai* 宅)	28 (at one location)	28%

[133] *Yinwan Han mu jiandu*, 138-144.

[134] *You* and *zhi* were both terms used for the post relay stations. Although it was believed that the former was used under the Qin and was substituted by the latter under the Han, excavated documents indicate they were used simultaneously. Some scholars suggested *zhi* were larger stations located every 30 *li* (ca. 12.5 km) along the relay routes, while *you* were located every 10 *li* (ca. 4.16 km). See, for example, Pu Chaofu 蒲朝府, "Qin Han youyi zhidu yanjiu" 秦漢郵驛制度研究 [A study of the postal system in the Qin and Han periods], M.A. thesis, Shandong University, 2016, 21-25.

Private houses (*jia* 家)	2	2%
Total	**100**	**100%**

Drafted some two hundred years after the fall of the Qin Empire, this document reveals continuity as well as important changes in the infrastructure of physical mobility during the early imperial period. Three event calendars in the Yuelu Academy collection of Qin documents, dated 220, 213, and 212 BCE, and an event calendar excavated from the Qin tomb at Zhoujiatai 周家臺, dated 213 BCE, record their owners, the traveling officials of local governments, staying overnight at guard posts (*ting*),[135] conveyance lodges (*zhuan*),[136] and post relay stations (*you*),[137] of which the former two are also accommodation types frequently mentioned in the Yinwan calendar. Other state-managed facilities scattered across the countryside, such as iron workshops (*tieguan* 鐵官), could also offer ad hoc accommodation when needed.[138] More often, however, officials and, presumably, other traveling individuals as well, preferred to spend nights at county or district seats that probably provided better amenities and a higher level of security.[139]

The guard posts were probably the most available official facility in the countryside. The late Western Han "Collected registers" (*ji bu* 集簿) of Donghai Commandery record 688 such

[135] *Yuelu shuyuan cang Qin jian*, vol. 1, 179, slip 40.

[136] *Yuelu shuyuan cang Qin jian*, vol. 1, 181, slip 33.

[137] *Yuelu shuyuan cang Qin jian*, vol. 1, 184, slips 6, 9, and 12; Hubei sheng Jingzhou shi Zhouliangyuqiao yizhi bowuguan 湖北省荊州市周梁玉橋遺址博物館, ed. *Guanju Qin Han mu jiandu* 關沮秦漢墓簡牘 [*Documents from the Qin and Han tombs at Guanju*] (Beijing: Zhonghua shuju, 2001), 93, slip 12.

[138] *Guanju Qin Han mu jiandu*, 94, slips 16, 17.

[139] The majority of entries in the Qin "event calendars" from the Yuelu Academy collection and Zhoujiatai mention the names of counties and districts as the locations where traveling officials stayed overnight.

posts scattered across its territory.[140] According to transmitted sources, by the end of the Western Han, the posts were stationed along the main roads, one post every ten *li* (c. 4.16 km).[141] On the average, each guard post was staffed with four servicemen, and probably had room to shelter several more individuals.[142] Apart from their accommodation function, these posts provided an essential security infrastructure. Their heads (*tingzhang* 亭長 or *xiaozhang* 校長) and servicemen (*qiudao* 求盜, lit. "bandit-catchers") were responsible for inspecting the countryside for bandits and reacting to reports on criminal activity.[143]

While being the most ubiquitous facility, guard posts were considered an appropriate accommodation only for low-ranking personnel. By Western Han times, a senior official's stay at such a post could be a scandal.[144] Relay stations (*you*) served a cozier accommodation. According to the early Western Han "Statutes on the forwarding of documents," an ordinary relay station had twelve rooms (*shi* 室) and was equipped with a stock of straw mats (*xi* 席), a well, and a grinding stone for grain. The staff offered cooking services to the government functionaries travelling on

[140] *Yinwan Han mu jiandu*, 77, tablet 1.

[141] *Hanshu*, 19A.742; *Han jiuyi*, 2.81.

[142] The Yinwan documents provide the total number of 2,972 servicemen for 688 posts, with an average of 4.3 per post, see *Yinwan Han mu jiandu*, 77, tablet 1. A document dispatched by the head of a Qin guard post in Qianling County requests for a reinforcement against a gang discovered in the vicinity of the post, who could probably be stationed at or near the post for the period of anti-bandit action. See *Liye Qin jian bowuguan cang Qin jian*, 43, tablet 9-1112.

[143] For a study of the guard post system in early empires, see Su Weiguo 蘇衛國, *Qin Han xiangting zhidu yanjiu: yi xiangting geju de chongshi wei zhongxin* 秦漢鄉亭制度研究—以鄉亭格局的重釋為中心 [*A study of the system of districts and guard posts in the Qin and Han periods: With the focus on the re-interpretation of spatial distribution of districts and guard posts*] (Harbin: Heilongjiang renmin, 2010), 104-204.

[144] *Hanshu*, 72.3086.

official business in case they had no servants to cook for them.[145] If they were accompanied by servants, the staff provided kitchen utensils and broth (*jiang* 漿) for cooking.[146] Post relay stations were probably an accommodation of choice for official travelers, but they were available only along important highways such as the one connecting the Middle Yangzi region to the capital Xianyang. An official from Nan Commandery recorded six stays at relay stations when he traveled to Xianyang in 212 BCE on what was probably an imperial highway.[147] No such stays are mentioned in the other two event calendars from the Yuelu Academy collection and only one in the 213 BCE calendar from the Qin tomb at Zhoujiatai.[148]

Conveyance lodges (or the lodges at conveyance stations, *zhuan she*) offered the most comfortable accommodation, as they were located in the county towns and were reserved for high-ranking officials and holders of travel certificates (*chuan* 傳) who were waiting for their weary horses to be changed for fresh ones.[149] Some scholars believe that conveyance lodges offered multi-room apartments for their guests.[150] In contrast to all other types of accommodation, these lodges stored food supplies such as grain, salt, and vegetables, that were issued according to the

[145] As already mentioned in the previous chapter, officials of a certain rank were entitled to the service of cooks (*yang* 養) who were usually picked from among the bondservant convicts. See, for example, *Liye Qin jiandu*, vol. 2, 42-43, tablet 9-30; 52-53, tablet 9-48. These cooks probably had to travel together with the officials.

[146] *Ernian lüling yu Zouyanshu*, 199-201, slips 265-267; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 738-739.

[147] *Yuelu shuyuan cang Qin jian*, vol. 1, 184-185, slips 1-31.

[148] *Guanju Qin Han mu jiandu*, 93, slip 12.

[149] *Shuihudi*, 60-61, slips 179-182; Hulsewé, *Remnants*, 83-85; *Ernian lüling yu Zouyanshu*, 183-184, slips 229-230; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 682-683.

[150] Su Weiguo, *Qin Han xiangting zhidu yanjiu*, 164.

visitor's rank and official position,[151] while individuals not entitled to staying at lodges had to carry their food supplies while travelling.

Archaeology has so far failed to provide adequate evidence on the accommodation facilities for travelers. This is likely explained by the small size of buildings and the use of perishable materials such as wood and straw for their construction. In particular, neither of the multiple building remains along the Straight Road of Qin was confidently identified as a post relay station or a guard post.[152] A rooftile with the graphs *yingtao zhuan she* 櫻桃傳舍 ("Cherry Conveyance Lodge") was excavated from the remains of the Western Han imperial palace at Ganquan 甘泉 to the north of the Qin capital Xianyang in the present-day Xianyang Municipality, Shaanxi Province. This was probably an accommodation facility for travelers near or inside the palace compound, particularly the messengers and envoys delivering documents to the emperor.[153]

2.3. Geographical knowledge and the "intellectual infrastructure" of mobility

Planning the road network, deploying accommodation facilities, relay stations, and guard posts, minimizing travel time and maximizing transportation efficiency – all these tasks required nuanced understanding of geographical and climatic conditions of regions where people and goods travelled. The earliest references to maps already occur in Western Zhou (1046–771 BCE) epigraphic sources.[154] An inscribed bronze tureen (*gui* 簋) cast by Ze, the Marquis of Yi 宜侯矢,

[151] For the regulation of rations in the Qin law, see *Shuihudi*, 60-61, slips 179-182.

[152] See Gao Ziqi, Zhou Xiaolu, "Qin zhidao jianzhu tanjiu," 21-26.

[153] Pu Chaofu, "Qin Han youyi zhidu yanjiu," 21.

[154] For a reference to maps in one of the early chapters of the *Classic of Documents* (*Shu jing* 書經), dated to the beginning of the Western Zhou period, see Ge Jianxiong, *Zhongguo gudai de ditu cehui*, 16-17. For the use of

was excavated in 1954 at Yandunshan 煙墩山, on the southern bank of Yangzi River near the city of Nanjing in the present-day Jiangsu Province. The vessel was likely produced in the North and arrived in the Lower Yangzi as military booty or dowry.[155] Its inscription gives a narration of the foundation of a regional polity called Yi 宜, which was probably located somewhere not far from the Western Zhou royal domain. Before assigning settlements to the new polity, the Zhou king "inspected the maps of King Wu's and King Cheng's attack on the Shang and thereupon inspected the map of the eastern regions (states?)" 王省武王、成王伐商圖，誕省東或（國）圖.[156] Another Western Zhou inscription, that on the bronze basin of the San clan 散氏盤, outlines in painstaking detail the boundaries of the land transferred by the ruler of Ze 矢 to the San clan in compensation for the previous attacks on the San's estates. The settlement is concluded with the making of a plan/map (*tu* 圖) that registered the new borders between the polities.[157]

While the royal court and regional states practiced map-making as early as the Western Zhou era, it was during the Warring States period that geographical knowledge became synonymous with sovereignty. Handing a map of a territory to a ruler of a rival state symbolized the resignation from further claims to these lands. When Jing Ke 荊軻, the retainer of Prince Dan 丹 of the state of Yan 燕, attempted an assassination of the would-be First Emperor of Qin in 227 BCE, he disguised himself as an envoy authorized to submit the important region of Dukang 督亢

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territorial maps attested in the Western Zhou bronze inscriptions, see Li Feng, "Literacy and the Social Contexts of Writing in the Western Zhou," in *Writing and Literacy in Early China*, 271-301, esp. 291.

[155] For a discussion of the archaeological context of this vessel, see Li Feng, *Landscape and Power*, 322-324.

[156] Translation follows Constance Cook and Paul Goldin, eds., *A Source Book of Ancient Chinese Bronze Inscriptions* (Berkeley: The Society for the Study of Early China, 2016), 25-26.

[157] For the introduction to and translation of this inscription, see Cook and Goldin, eds., *A Source Book of Ancient Chinese Bronze Inscriptions*, 168-171.

to the state of Qin. Jing Ke presented the area's map to the Qin ruler, which allowed him to approach him close enough to launch his attack.[158]

The Qin administrative documents shed some light on how this geographical knowledge was built up. A partly preserved wooden board from the Qianling archive bears central government's prescriptions to commandery and local authorities to contribute to the empire-wide mapping project:[159]

> 其旁郡縣與椄（接）界者毋下二縣，以□為審，即令卒史主者操圖詣御史，御史桉讎更并，定為輿地圖。有不讎、非實者自守以下主者☑
>
> For [those commanderies] that border upon more than two counties of a neighboring commandery, …to be verified. Order the head of adjunct scribes to submit the maps to the Imperial Secretary. The Imperial Secretary collates [the maps] and aggregates them in order to establish the general map [of the empire]. Those who do not collate [maps] as well as those who [provide] inaccurate [information], from [commandery] governors and down to the senior officials [of county offices and districts]…

The opening phrase of this document, which some scholars believe to be an excerpt from an imperial edict (*zhaoling* 詔令), presents challenges of interpretation.[160] According to one reading, the text addressed the situation when the authorities of two neighboring commanderies applied for a revision of commandery boundaries, in which case maps had to be updated accordingly.[161] What is clear is that central authorities prescribed officials to regularly update

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[158] *Shiji*, 86.2534-2535.

[159] *Liye Qin jiandu*, vol. 1, 118, tablet 8-224+8-412+8-1415.

[160] For the interpretation of this document as an imperial edict, see You Yifei, "Sanfu fenli – cong xinchu Qin jian lun Qin dai junzhi" 三府分立—從新出秦簡論秦代郡制 [Three offices established separately: A discussion of the Qin period commandery organization on the basis of newly excavated Qin documents], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2644, accessed April 23, 2018; and Yates, "The Economic Activities of a Qin Local Administration."

[161] Chen Zhonglong 陳中龍, "Cong Qin dai guanfu niandu lüling jiaochou de zhidu lun Han chu "Ernian lüling" de "ernian" 從秦代官府年度律令校讎的制度論漢初"二年律令"的"二年" [The meaning of the "second year"

commandery maps and submit them to the Imperial Secretary (*yushi* 御史), who was in charge of aggregating commandery data into the general map of the empire.[162] Commandery maps, in their turn, aggregated geographic information collected from subordinate counties, so Dongting Commandery authorities forwarded the central government's requirement for the submission of updated maps to Qianling and other counties in their jurisdiction. Such county maps figure in another fragmentary text from Liye, which mentions the map of Youyang 酉陽 County of Dongting Commandery and possibly also contains a report on the mapping of the You River.[163]

Qin and Han documents routinely refer to "county boundaries" (*xianjie* 縣界), suggesting that local officials were supposed to be aware of the geographic extent of their administrative areas.[164] The early Western Han "Statutes on arrests" (*bu lü* 捕律) from the Zhangjiashan collection, for example, prescribe that officials pursuing robbers "do not dare to [merely pursue them to the county]… boundary before returning."[165] Another statute stipulates that county magistrates and their assistants were held jointly liable for legal decisions made in their absence by temporary substitutes as long as they were still within the boundaries of their respective

in the early Han legal collection "Statutes and ordinances of the second year" as viewed from the Qin period regime of annual collation of statutes and ordinances], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2550, accessed April 23, 2018.

[162] For the Imperial Secretary's responsibility for drafting empire maps in the Western Han period, see *Shiji*, 60.2110. After the capture of the Qin capital Xianyang by the rebel forces under Xiang Yu 項羽 in 207 BCE, the would-be first chancellor of the Han Empire, Xiao He 蕭何, was the first to enter the archive of the Qin offices of Chancellor and Imperial Secretary to appropriate "statutes, ordinances, plans/maps, and documents" 律令圖書 stored there, see *Shiji*, 53.2014. This information proved invaluable when the King of Han and the future Han emperor Liu Bang was mobilizing resources and planning campaigns during the subsequent war of Qin succession. One may assume that maps were archived in the office of the Imperial Secretary.

[163] *Liye Qin jiandu*, vol. 1, 177, tablet 8-543+8-667. For the location of Youyang County, see Map 2.5.

[164] See, for example, *Liye Qin jiandu*, vol. 1, 119, tablet 8-228; 190, tablet 8-649; 193-194, tablet 8-657; vol. 2, 38-40, tablet 9-26; 414-416, tablet 9-2076; *Yuelu shuyuan cang Qin jian*, vol. 5, 185, slips 263-264.

[165] *Ernian lüling yu Zouyanshu*, 148, slips 140-141; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 560-561.

counties.[166] Official boundaries were drawn not only between the counties but also between the sub-county administrative units, the districts (*xiang*). A document from the Qianling archive is referring to the agricultural fields located "within the boundaries of Qiling [District]" 啟陵界中.[167]

To conduct their everyday administrative business, officials had to have a reasonably accurate idea about the geographical extent and shape of their administrative units. At the same time, the boundaries should not be imagined as continuous lines on the maps. More likely, they were some landmarks, milestones, or official installations along the roads or rivers.

That visualized geographic information was indeed available to the local functionaries is demonstrated by the already mentioned seven maps excavated from the tomb of a Qin official at Fangmatan some two hundred kilometers to the West of the capital Xianyang. The maps date from the early third century BCE. The region they depict was strategically important: it provided access to the Qin core in the Wei River basin from the west and southwest.[168] The local administrative center, presumably located not far away from the excavated cemetery, overlooked the watershed between the Wei and Jialing 嘉陵 Rivers, which were parts of the greater Yellow and Yangzi River systems, respectively. According to the recent reconstruction of the geographic purview of the Fangmatan maps, they covered the area of approximately 2,000 sq.km (40 km east-west and 50

[166] *Ernian lüling yu Zouyanshu*, 133, slips 104-105; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 504-505.

[167] *Liye Qin jiandu*, vol. 2, 152-153, tablet 9-543+9-570+9-835.

[168] The strategic importance of this region is best illustrated by the Zhuge Liang's 諸葛亮 campaigns against the Wei 魏 Empire during the Three Kingdoms period (220–280 CE). Zhuge's army advanced from Sichuan and crossed the Qinling Mountains to the west of Guanzhong, descending into the Wei River basin near the present-day city of Tianshui 天水市. See Ma Zhijie 馬植杰, *Sanguo shi* [*The History of the Three Kingdoms*] 三國史 (Beijing: Renmin, 2004), 132-139.

km north-south), which likely coincided with a county-level administrative unit where the tomb owner served as an official during his lifetime.[169]

Geographic data in the maps is structured by transportation routes, primarily rivers but probably also one overland road running along the course of Huamiao 花廟 River, the tributary of Jialing River. Any administrative boundary defined on the basis of these maps would not be a continuous line but rather a point on either of these transportation routes. Two maps record distances between various locations, such as the logging sites and the confluences of rivers by which timber was rafted downstream (see Illustration 5.2).[170]

[169] Yan Changgui, "Tianshui Fangmatan mudu ditu xintan" 天水放馬灘木牘地圖新探 [A new analysis of the Qin maps on wooden tablets from Fangmatan, Tianshui], in *Qin jiandu dili yanjiu*, 286-325.

[170] *Tianshui Fangmatan Qin jian*, 108-109, 151-152.

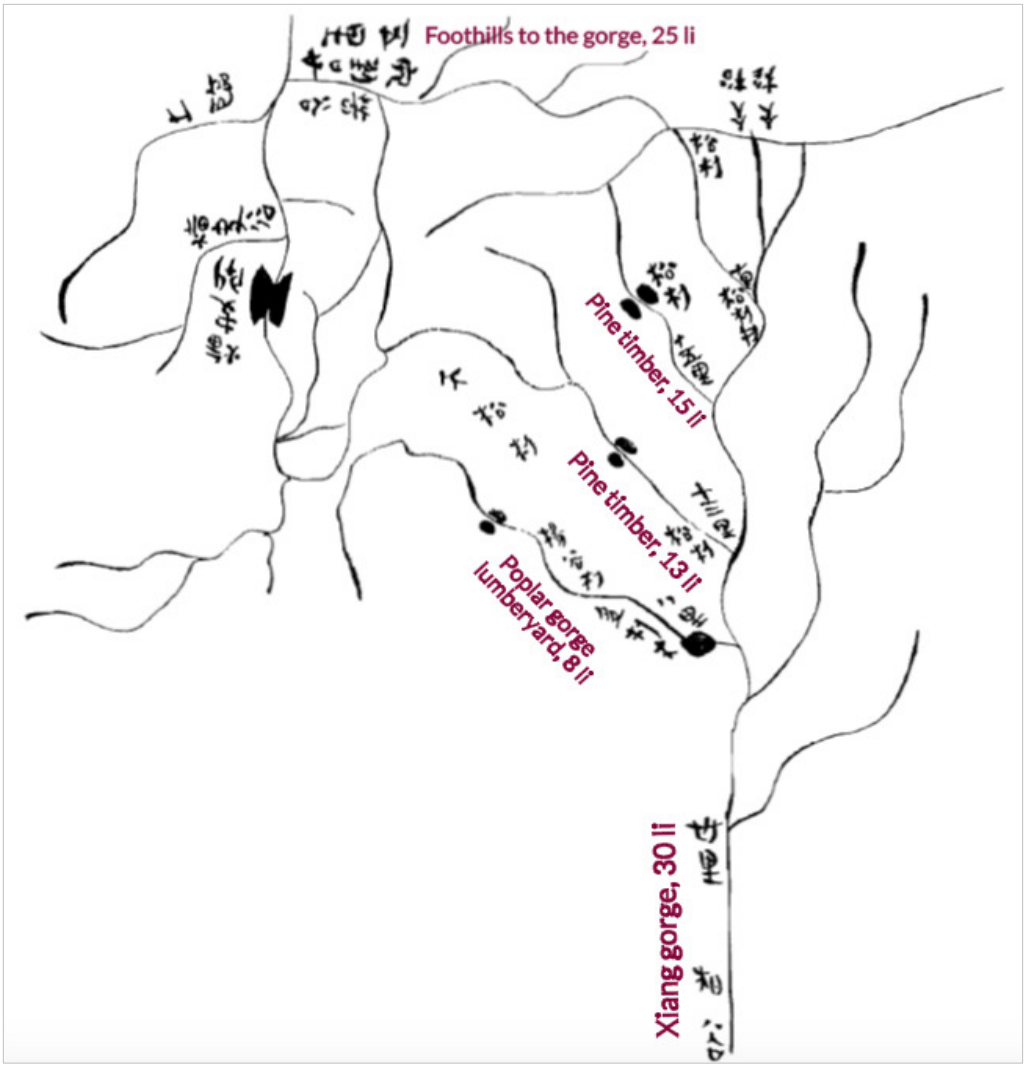

Illustration 5.2: Distance records in the Fangmatan map no. 3

The relationship between the seven Fangmatan maps sheds some light on the process of collecting, processing, and aggregating data than culminated in the drafting of the general map of the empire at the office of Imperial Secretary. The Fangmatan map 2, for example, represents a close-up view of the left part of map 1 (see Illustration 5.3). The latter, smaller-scale map, would have been drafted on the basis of two or more large-scale maps such as map 2.[171] Yan Changgui's

[171] *Tianshui Fangmatan Qin jian*, 149-150. Cao Wanru 曹婉如 was among the first scholars to observe that some of the Fangmatan maps were close-up representations of sections of other maps, see Cao Wanru, "Youguan Tianshui

analysis of the relationship between the Fangmatan maps points at the possibility that large-scale maps (maps 2, 3, and 4) correlate to the early stages of tomb owner's official career when he was in charge of relatively small administrative units such as districts (*xiang*), while the smaller-scale maps (maps 1 and 6) represented later stages when he was promoted to a county-level position. The map collection as a whole can therefore be read as a story of a successful career as ever larger territories were included in tomb owner's administrative purview.[172] It also reflects the process of map composition in Qin, which probably started at the district level where most detailed, large-scale maps were composed. These were subsequently aggregated into county maps that, in turn, provided data for commandery maps submitted to the central government. If any inferences about the Qin cartographic tradition can be made from the Fangmatan maps, this tradition could be defined as that of transportation maps focused on river systems and other routes.

Fangmatan Qin mu chutu ditu de jige wenti" 有關天水放馬滩秦墓出土地圖的幾個問題 [Some problems concerning the maps excavated from the Qin tomb at Fangmatan, Tianshui], *Wenwu* 12 (1989): 78-85.

[172] Yan Changgui, "Tianshui Fangmatan mudu ditu xintan," 324.

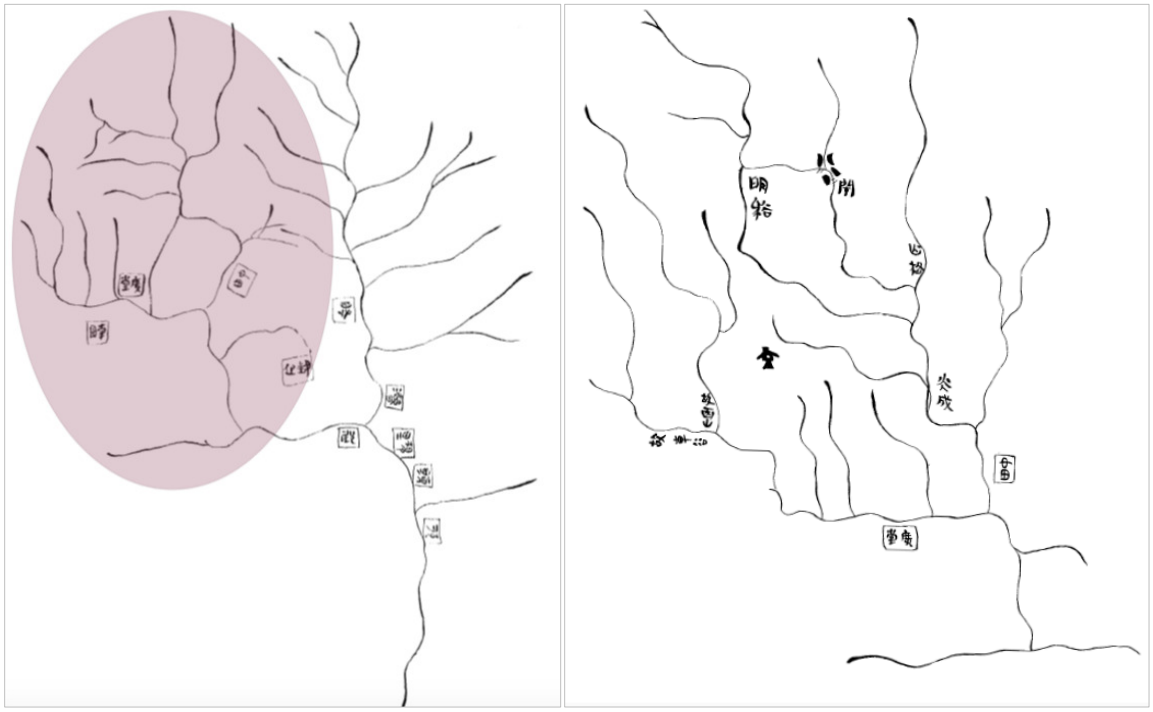

Illustration 5.3: Maps 1 (left) and 2 (right) from Fangmatan

That this was indeed the case is suggested by the early Western Han silk maps excavated from tomb no. 3 at Mawangdui 馬王堆 (Changsha City, Hunan Province) and dated around 168 BCE. Geographic material in two well-preserved maps conventionally titled "Topographic map" (*dixing tu* 地形圖) and "Garrison map" (*zhujun tu* 駐軍圖) is focused on the Xiang River and its tributaries, along which settlements were situated and military units stationed (see Illustration 3.2).[173]

Apart from the maps, another key element of the state-sponsored "intellectual infrastructure" of geographic mobility were itineraries, or distance tables (*lichen biao* 里程表).[174]

[173] See Ge Jianxiong, *Zhongguo gudai de ditu cehui*, 47-55.

[174] These distance tables, or mileage charts, from the Qianling county archive and the Peking University collection of Qin documents have recently been discussed and partly translated in Yates, "Law and the Circulation of Documents

These lists provided detailed outlines of travel routes and indicated distances between county towns and other locations along the route where travelers could find safety, accommodation, and food supplies. A number of such lists were excavated from the Qin and Han sites. One example is the fragment of a wooden tablet from Liye[175]:

⿴里
⿴里
⿴里
⿴六十四里（上欄）
鄢到銷百八十四里
銷到江陵二百卌里
江陵到孱陵百一十里
孱陵到索二百九十五里
索到臨沅六十里
臨沅到遷陵九百一十里
□□千四百卌里（下欄）

Upper register
…*li*
…*li*
…*li*
…64 *li*

Lower register
[From the County of] Yan to [the County of] Xiao, 184 *li* (c. 76 km)
[From the County of] Xiao to [the County of] Jiangling, 240 *li* (c. 100 km)
[From the County of] Jiangling to [the County of] Chanling, 110 *li* (c. 46 km)
[From the County of] Chanling to [the County of] Suo, 295 *li* (c. 122 km)
[From the County of] Suo to [the County of] Linyuan, 60 *li* (c. 25 km)
[From the County of] Linyuan to [the County of] Qianling, 910 *li* (c. 378 km)
…, 440 (?) *li*[176]

by Scribes in the Early Chinese Empires," paper presented at the Association for Asian Studies Annual Conference 2016, Seattle, March 31 – April 3, 2016.

[175] *Liye Qin jian bowuguan cang Qin jian*, 70, tablet 16-52.

[176] The last line is separated from the rest of the text and most likely provides total distance between the termini of this route. The first graphs are not preserved, so it is unclear what this distance was.

This partly preserved list records distances between the county seats to be passed on the way from what is now the vicinity of Yicheng 宜城 Municipality in the northern part of Hubei Province to Qianling County. It is not specified if these distances refer to riverine or overland routes. The former is more likely since all county towns listed in the itinerary were located along Yangzi River and its northern and southern tributaries.[177]

Another fragmentarily preserved distance list from the Qianling archive outlines a 7,723 *li* (3,205 km) long travel route with a terminus in Anyang 安陽 County, Handan 邯鄲 Commandery to the north of the Yellow River in what is now the northern part of Henan Province.[178] After the initial 70 km-long leg that might have been traveled overland, the route proceeded along the Yellow River and the Honggou Canal to Yingshui 潁水 River, the northern tributary of the Huai River, and from there most likely to the Yangzi River basin, to terminate at Qianling County to the south of the Yangzi.[179] Developing such an itinerary to cross the empire from north-east to south-west would have required input from about a dozen commanderies coordinated by the central government. The task could have been assigned to the office of the Imperial Secretary that

[177] For the argument that this distance list deals with a riverine route, see Kim Byeong Joon, "Chūgoku kodai nanpō chiiki no suiun," 172.

[178] *Liye Qin jian bowuguan cang Qin jian*, 73, tablet 17-14. For a discussion of the northern terminus of this route, see Huang Xiquan 黃錫全, "Xiangxi Liye dili mudu buyi" 湘西里耶地理木牘補議 [Additional comments concerning the geographical text on a wooden tablet from Liye, Xiangxi], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=511, accessed April 24, 2018.

[179] The route can be partly reconstructed on the basis of geographical names known from the transmitted texts. Dunqiu 頓丘 County in Dong 東 Commandery, which was the next stop on the route after Anyang, was located on the southern bank of the Yellow River. From there the route proceeded to unidentified location of Xu 虛 and then to Yanshi 衍氏 County located on the Honggou Canal some 30 km to the south-east of its confluence with the Yellow River. The travel between Dunqiu and Yanshi was probably first carried out first up the Yellow River and then along the Honggou Canal to Huai River basin, although the possibility of some overland legs cannot of course be excluded. For the location of Dunqiu and Yanshi counties, see *Zhongguo lishi dituji*, vol. 2, 7-8. Note that the distance between Anyang and Qianling as the crow flies is approximately 900 km.

was in charge of collecting and collating maps of the regions and aggregating them into the general map of the empire.

As in the case of the maps, distance lists probably also existed at the county level. A fragment of one such list excavated at Liye provides distances between sub-county administrative units, districts (*xiang*), and probably other locations within Qianling County.[180] When such information was unavailable, county authorities had to rely on their subordinates' local knowledge for instructions concerning the preferable travel route. Mistakes resulting in inefficient or erroneous routes were subject to legal scrutiny and potential penalty, as suggested by the following petition by the vice-magistrate of Qianling:[181]

> 卅年□月丙申，遷陵丞昌、獄史堪訊。昌辪（辭）曰：上造，居平□，侍廷，為遷陵丞。□當詣貳春鄉，鄉渠史獲誤詣它鄉，□失道百六十七里。即與史義論貲渠獲各三甲，不智劾云貲三甲不應律令，故皆毋它坐，它如官書。（正）
> ☑　堪手（背）
>
> *Front side*
> Thirtieth year [of King Zheng, i.e., the First Emperor] (218–217 BCE), in … month, on the day *bing-shen*, Chang, the Vice-Magistrate of Qianling, and Kan, a judiciary clerk, [responded to] interrogation. Chang [made the following] statement: "[I am a holder of] the *shangzao* (2nd) rank and a resident of Ping [County][182]…, [I] attended the [county] court and was made the Vice-Magistrate of Qianling. …I was to visit Erchun District, but the District [Head] Qu and scribe Huo erroneously directed me to a different district, …[so that] I made a detour of 167 *li* (c. 69 km). Together with scribe Yi, [we] sentenced Qu and Huo to be fined three suits of armor each.[183] I do not know if the fine [amount] of three suits of armor in the official accusation accords with the statutes and

[180] *Liye Qin jiandu*, vol. 1, 453, tablet 8-2262.

[181] *Liye Qin jiandu*, vol. 1, 216, tablet 8-754+8-1007.

[182] The editors of the *Liye Qin jiandu* point out that in Western Han times a county bearing this name is attested in Henan 河南 Commandery between the Yellow and Luo 雒 rivers, in what is now north-western part of Henan Province, see *Liye Qin jiandu*, 216, n. 4. For the geographic location of Ping County, see *Zhongguo lishi dituji*, vol. 2, 15-16.

[183] Three suits of armor were equivalent to 4,032 cash. This amount is attested elsewhere in the Liye documents as a fine imposed on officials, see Chapter 4, Table 4.3.

ordinances. All [involved in this case] do not have any previous criminal record. All the rest is in accordance with the (previously sent?) official document.

Back side
…Drafted by Kan.

The case suggests that four years after the Qin expansion to the south of the Middle Yangzi, the county officials did not have a reliable description for the travel route between the county town and one of Qianling's three subordinate districts, and had to ask for directions from Erchun district functionaries who probably had to frequently travel between their district and the county seat. The latter's failure to provide an accurate guidance cost the county vice-magistrate a 70 km-long detour. It is unclear if he eventually reached Erchun. In any event, the vice-magistrate took the trouble to meticulously record the mistakenly traveled distance, most likely because this corresponded to the amount of food supplies wasted in provisioning him on this unnecessary travel. Responsibility for this wastage was eventually passed to the hapless trip advisors.

This case also implies that Qin officials possessed the means to estimate distances they travelled. The only way they could do so on the uncharted route would be by multiplying travel time by applied speed standards, such as those provided in the above-quoted Qin and Han statutes "On labor services" and "On the delivery of documents."[184] This was probably how the distances in excavated distance lists were calculated, which should provide a note of

[184] Time could be measured by sun, moon, and stars. For more accurate measurement, the water clock was already available by the Qin and Han time. For a detailed discussion, see Ma Yi, "Handai de jishiqi ji xiangguan wenti" 漢代的計時器及相關問題 [Time-measuring devices during the Han period and some related problems], *Zhongguo shi yanjiu* 3 (2006): 17-36. For a sample of a bronze water clock in use during the early imperial era, see Zhixin Jason Sun et al., *Age of Empires: Art of the Qin and Han Dynasties* (New York: The Metropolitan Museum of Art, 2017), 127. For a recent discussion of time measurement system in Qin, see Chen Kanli, "Liye Qin jiandu suojian de shike jilu yu jishifa" 里耶秦簡牘所見時刻記錄與記時法 [Records of time units and time measurement system as reflected in the Qin documents from Liye], *Jianbo* 16 (2018): 179-190.

caution concerning their accuracy and correlation to the distances suggested by modern maps.[185]

Whether or not this incident urged Qianling officials to compose an itinerary for the Erchun route, remains unknown. However, it is hardly doubtable that the key rationale for distance lists was to prevent such mistakes and concomitant wastage of time and resources. In process of maximizing the efficiency of the state economy, the Qin bureaucrats and their Han followers explored and sketched countless routes for both local and long-distance travels that could hardly be developed by any private individual or group of private individuals on such a geographic scale and with such consistency. While some, probably most of the distances in these itineraries were quite inaccurate by modern standards, they nevertheless provided guidance to the economy of travel and transportation and established connectivity between the empire's regions across difficult terrain and through hostile populations.

3. The state on the move: case studies in geographic mobility in the Qin Empire

State-organized and state-induced migration that resulted in the emergence of new population centers was part and parcel of the Qin imperial expansion (see Chapters 2 and 3). This resulted in systematic demographic imbalances when such population centers stretched the agricultural resources of the surrounding hinterland. By imperial Qin times, for example, the salt-

[185] Scholars routinely apply distance records in ancient maps and distance lists to argue for geographic location of particular administrative units and other places mentioned in these documents. Unsurprisingly, their tolerance for inaccuracy and readiness to accept numerical mistakes in the ancient record varies depending on the argument they are trying to make. For an implicit criticism of such approaches, see Yan Changgui, "Tianshui Fangmatan mudu ditu xintan," 312. For an application of distance records in the Fangmatan maps to relate them to the actual geography of Tianshui region, see, for example Zhang Xiugui 張修桂, *Zhongguo lishi dimao yu gu ditu yanjiu* 中國歷史地貌與古地圖研究 [*A study of Chinese historical topography and ancient maps*] (Beijing: Shehui kexue wenxian, 2006), 519-554.

producing areas in the Three Gorges hosted so many exiles and convicts that, probably for the first time in the region's history, overpopulation became a concern.[186] Here as elsewhere, the problem was exacerbated by the fact that many of the arriving individuals belonged to non-farming groups such as artisans, salt-producers, and military and administrative personnel. Artificial imbalances in population density and occupational profiles required continuous long-distance relocation of resources for the state-sponsored population centers to be sustainable.

Scholars previously voiced skepticism regarding the ability of early Chinese empires to organize the transfer of bulky commodities, particularly grain supplies, over large distances.[187] Transmitted evidence on state-organized resettlement projects and grain imports to Guanzhong and the recently published Qin documents indicate that such shipments were practiced almost a millennium before the construction of the Grand Canal. This new evidence is addressed in the first part of this section. It suggests that the central Yangzi basin was not as economically marginal in the ancient empires as was previously believed. The government was heavily investing in hydraulic improvements and logistical infrastructure in this region.

The second part is concerned with the state-organized mobility of people. It focuses, first, on the officials, an occupational group whose functioning was associated with regular, often long-distance moves across space. Their physical mobility depended not only on the transportation infrastructure discussed in the previous section but also on the organizational and financial arrangements. Maintaining and controlling officials' mobility was one of the major concerns of

[186] The problem was highlighted in the memorial submitted by the court officials to the emperor. The proposed solution was to redirect the flow of convicts and exiles to the newly conquered territories to the south of Middle Yangzi, where Dongting and Cangwu Commanderies came under Qin control in 222 BCE. See *Yuelu shuyuan cang Qin jian*, vol. 5, slips 14-18. That this policy was heeded by the emperor is suggested by the vast number of convicts in proportion to the local population attested by the Qianling archival evidence (see Chapter 3).

[187] Mark Lewis recently argued that the Qin and Han empires were "spatially circumscribed", with the regional urban centers relying solely on their immediate hinterland for food supplies. See Lewis, "Early Imperial China," 282-307.

the state. Much of its resources and bureaucratic inventiveness were deployed toward this goal. Then I attempt assessing the financial costs of resettlement projects for the imperial budget, which leads to some general conclusions about the scale and impact of state-organized migration in the early Chinese empires.

3.1. Long-distance shipments in the Qin Empire

The late Western Zhou bronze inscription on Xi Jia's basin 兮甲盤 describes the accumulation (*ji* 積) of goods extracted as tribute (*zheng* 徵) from the "four quarters" (*si fang* 四方) in the eastern royal capital of Chengzhou 成周, the present-day city of Luoyang. What this tribute was composed of is not very clear, although the text mentions the payment of silk cloth (*bo* 帛) by the Southern Huaiyi 南淮夷 peoples who, as their name suggests, inhabited the Huai River basin to the south-east of the Zhou royal domain.[188] The Southern Huai may have been skilled silk weavers, but under the Western Zhou as well as in the latter periods, the choice of silk as a tribute medium was dictated by the lightness and therefore transportability of these textiles. Shipment of bulkier and less valuable goods such as grain presented a much greater challenge.

Nevertheless, in the following Spring and Autumn period such shipments were becoming relatively commonplace. They were usually transacted between neighboring polities in times of famine, as was the case in the 6th year of Lord Yin 隱公 of Lu (717 BCE). The *Spring and Autumn Annals* (*Chunqiu* 春秋) recorded that "in winter, a report of famine came from the capital. Our lord, because of this, made requests in Song, Wei, Qi, and Zheng for shipments of grain. This was

[188] Cook and Goldin, eds., *A Source Book of Ancient Chinese Bronze Inscriptions*, 184-186.

in accordance with ritual propriety."[189] An explicit statement that grain was earmarked for capital residents suggest a relatively limited scale of shipment, considering the small size of urban populations in the early Spring and Autumn period. Other similar episodes are recorded in 666 BCE when a Lu dignitary was dispatched to the neighboring state of Qi to purchase grain at the time of "great dearth;"[190] and in 647 BCE when the state of Qin graciously came to the aid of its neighbor and rival Jin.[191] The latter record mentions that grain was transported by boats, probably down the Wei River and then up the Yellow and Fen rivers. According to the records for 717 and 666 BCE, famine relief to a neighboring state – member of the Zhou political order was considered a ritual obligation (*li* 禮), suggesting that such grain shipments were routinized to a considerable degree and had a limited scale insofar as ritual relations only extended to the members of aristocratic lineages and not to the general populace of the respective polities.

Already in the early Spring and Autumn period, and very likely much earlier, long-distance expeditions to trade local produce for coveted metals were organized under the auspices of the state rulers. Inscriptions on a bronze tripod and a set of bells from the state of Jin 晉 probably dated to around 740 BCE record what appears to have been a commercial expedition patronized by the members of this state's ruling family that exchanged Jin salt and grain for copper from the Yangzi basin at a major entrepot midway between the two places.[192]

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[189] 冬，京師來告饑，公為之請糴於宋，衛，齊，鄭，禮也。 Translations follows *Zuo Tradition (Zuozhuan* 左傳*). Commentary on the "Spring and Autumn Annals"*. Translated and introduced by Stephen Durrant, Wai-yee Li, and David Schaberg (Seattle and London: University of Washington Press, 2016), vol. 1, 43.

[190] 大無麥禾，臧孫辰告糴于齊。 *Zuo Tradition*, vol. 1, 211.

[191] 冬，晉荐饑，使乞糴于秦……秦於是乎輸粟于晉，自雍及絳相繼，命之曰，汎舟之役。 *Zuo Tradition*, vol. 1, 309-311.

[192] For the discussion of these inscriptions, see Li Xueqin 李學勤, "Rong-sheng bianzhong lunshi" 戎生編鐘論釋 [Discussion and interpretation of the Rong-sheng chime bells], *Wenwu* 9 (1999): 75-82; Wu Yiqiang 吳毅強, "Jin

The earliest evidence for the state regulation of long-distance shipments dates from the mid-Warring States period. Inscribed bronze tallies belonging to two distinct sets, one for boats and one for carts, dated to 323 BCE were collected from the local farmers during archaeological survey in central Anhui Province in 1957 and 1960.[193] Issued by the King of Chu, cast in bronze and elegantly inlaid in gold, these tallies were granted to a certain Qi, the Lord of E 鄂君啟, a hereditary ruler of one of the many dependencies of the state of Chu. They conferred the right to conduct trade toll-free along the major rivers in the central Yangzi basin, including the Han River, Yangzi itself, and its southern tributaries, as well as overland along Chu's northern frontier. Each year the Lord of E was authorized to equip fifty "boat triplets" (*kua* 舿, probably three boats tied together) and fifty carts.[194] Each cart could be substituted, alternatively, by a caravan of ten horses, oxen, or buffaloes, or by twenty carrying-poll runners (*dantu* 擔徒).[195]

Additionally, wagon tallies prohibited transportation of weapons and materials that could be used for manufacturing armor: metal, leather, and bamboo-shafted arrows.[196] The most obvious explanation for such prohibition is that the overland trek proceeded along the northern frontier of

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Jiang ding bulun" 晉姜鼎補論 [Additional comments on the Jin Jiang cauldron], *Zhongguo lishi wenwu* 6 (2009): 79-83.

[193] For a detailed English-language study and translation of Lord of E tally inscriptions, see Falkenhausen, "The E Jun Qi Metal Tallies," 79-123.

[194] Some scholars argued that the otherwise unattested graph *kua* indicates a large boat, see, for example Liu Hehui 劉和惠, "Chu E-jun Qi jie xintan" 楚鄂君啟節新探 [A new interpretation of the Chu tallies of Qi, Lord of E], *Kaogu yu wenwu* 5 (1982): 60-65. Others argued that the term is a counter indicating a unit of three boats, see Li Ling, "Chu guo tongqi mingwen biannian huishi" 楚國銅器銘文編年彙釋 [Annotated and chronologically arranged inscriptions on the bronze vessels from the state of Chu], *Guwenzi yanjiu* 13 (1983): 353-397. Falkenhausen adopts this later interpretation by translating the graph as "boat triplet," see Falkenhausen, "The E Jun Qi Metal Tallies," 108.

[195] Falkenhausen, "The E Jun Qi Metal Tallies," 108-109.

[196] Falkenhausen, "The E Jun Qi Metal Tallies," 109.

the state of Chu which during the Warring States period was an arena of ongoing conflicts between Chu and its northern neighbors, the states of Han and Wei. Some scholars suggest that the ban applied to carts and not to boats because overland transportation was considered much more dangerous than the riverine, so military materials were only allowed to be transported by water.[197]

Both boat and cart tallies outlined travel routes to be used by the Lord of E's caravans. The riverine route is described in more detail. It started at the market (*shi* 市) of E, which was probably located at the capital of this domain. The boat itinerary suggests it was situated near the confluence of the Han River and its eastern tributary, Yu 育, in the vicinity of the modern city of Xiangyang 襄陽.[198] The route proceeded to the Han River, which could be travelled both upstream and downstream. While the upstream trajectory terminated at one of Chu's north-western outposts in the Han basin, the downstream one brought boat caravans to the Yangzi valley where they could choose to proceed either upstream or downstream. The upstream direction reached the Dongting Lake and proceeded up the Yangzi's southern tributaries, the Xiang 湘, Zi 資, Yuan 沅, Li 澧, and Yao 繇 Rivers. The route terminated at the Chu capital of Ying 郢 on the Jianghan Plain.[199]

The overland route is described in less detail. Most scholars agree that it was directed northwards toward Nanyang Basin crossed by the Chu defense lines centered on the town of Fangcheng 方城, which figures in the cart tally inscription (in its graphic variation 邡城) as one of the stops along the route.[200] From here, the route proceeded eastward to the Huai River, passing

[197] Kim Byeong Joon, "Chūgoku kodai nanpō chiiki no suiun," 175.

[198] Falkenhausen, "The E Jun Qi Metal Tallies," 109-110.

[199] Falkenhausen, "The E Jun Qi Metal Tallies," 113-114.

[200] Falkenhausen, "The E Jun Qi Metal Tallies," 114. For the location of Fangcheng, see *Zhongguo lishi dituji*, vol. 1, 45-46.

through the capital of another Chu dependency, Cai 蔡, before turning southeastward and terminating at the Chu capital.[201]

Scholars have long emphasized that the trade carried out by Lord of E's boat and cart caravans was not a purely commercial enterprise. It has been noticed that travel routes did not pass through some important Chu cities. Instead, the overland route was designed so that the E merchants traveled along the northern frontier and the front lines of the Chu troops deployed against the eastern state of Yue, which was conquered by Chu in 307 BCE. Commerce in this region probably pursued the goal of supplying garrisons, developing the local economy on the military frontier, and integrating newly conquered territories into the Chu economic sphere.[202] Scholars suggest that trading expeditions were instrumental not only in channeling to the capital the local goods from peripheral regions, including those where the Chu presence had been established only recently, but also in "acculturating the populations of the kingdom's southern peripheries to the lifeways of the Zhou culture sphere."[203]

While no tallies similar to those of the Lord of E have so far been discovered in Qin or any other of the Warring States, the official practice of elaborating detailed itineraries for long-distance transportation and communication underlies both the Chu tallies and the Qin distance lists discussed in the previous section. By providing benefits of security and tax exemption to the travelers and traders along the specified routes, the rulers of the Warring States and early empires

[201] Falkenhausen, "The E Jun Qi Metal Tallies," 114-115.

[202] See Funakoshi, "Gaku Kun Kei setsu ni tsuite," 55-95; Chen Wei, "E-jun Qi jie yu Chu guo mianshui wenti," 52-58.

[203] Falkenhausen, "The E Jun Qi Metal Tallies," 95.

sought to facilitate interregional connectivity and make use of the circulation of people and goods to attain economic and strategic objectives.

The Grand Canal before the Grand Canal: interregional grain shipment in the 3rd century BCE

A collection of Qin documents inscribed on 762 bamboo slips, 21 wooden slips, and 11 wooden and bamboo tablets was acquired by Peking University in the Hong Kong antiques market at the beginning of 2010. Although the texts are unprovenanced, composition of the collection and geographical information figuring in the texts suggest that the manuscripts were looted from a tomb of a local Qin official in the Middle Yangzi basin. Large third century BCE cemeteries excavated in the vicinity of the Qin administrative centers in the conquered Chu territories, Jiangling 江陵 and Anlu 安路 (in the modern Jingzhou 荊州 Municipality and Yunmeng 雲夢 County of Xiaogan 孝感 Municipality, Hubei Province, respectively) were mentioned as the likely places of origin.[204]

Although the collection remains officially unpublished, and only a very small number of photos of slips and tablets have been released so far, some manuscripts were introduced, discussed, and partly or fully published in journal articles by the scholars of the Peking University Institute for Excavated Manuscripts 北京大學出土文獻研究所 in charge of preservation, reconstruction, transcription, and publication of the collection.[205] One of these texts is the distance list conventionally referred to as "The travel distance manual for waterborne and overland routes"

[204] Beijing daxue chutu wenxian yanjiusuo, "Beijing daxue cang Qin jiandu gaishu," 65-73.

[205] The team is headed by the paleographer and specialist in Zhou bronze inscriptions, Prof. Zhu Fenghan 朱鳳瀚. The eighth volume of one of the key periodicals on ancient Chinese manuscripts, *Jianbo* 簡帛 (*Bamboo and Silk Manuscripts*), published by the Wuhan University Center of Bamboo and Silk Manuscripts, is partly devoted to the introduction to various manuscripts from the Peking University collection of Qin documents written by the members of editorial team. See *Jianbo* 8 (2013), 1-48.

(*shuilu licheng jiance* 水陸里程簡冊). Its transcription into modern Chinese characters was first published in the two articles by Xin Deyong, a historical geographer from Peking University.[206] Building upon Xin's studies and the published photographs of three bamboo slips from this manuscript,[207] another specialist in ancient Chinese historical geography, Yan Changgui 晏昌貴, from Wuhan University, offered a reconstruction of the original layout of the distance list.[208] The following discussion relies on these publications.

The list is inscribed on 66 bamboo slips 22.6-23.1 cm (approximately one Qin *chi*) long and 0.5-0.7 cm wide, which were originally tied together to form a scroll.[209] With the exception of two slips inscribed with a single line of text (nos. 211 and 047 in the original numeration of slips), the manuscript is divided into two registers, each of which was supposed to be read continuously.[210] In terms of content, the larger part of the text consists of distance lists such as those discussed earlier in this chapter, each entry of which indicates distance between two locations. The first slip of the manuscript (no. 211) and the lower register text on slips 2–6 record official travel speed prescriptions for boats on the Yangzi and Han Rivers, and then, separately, on "other

[206] Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance de xingzhi he niming wenti" 北京大學藏秦水陸里程簡冊的性質和擬名問題 [Problems of nature and title of the Qin travel distance manual for waterborne and overland routes from the Peking University collection], *Jianbo* 8 (2013): 17-27; Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu," 177-279.

[207] Black-and-white plate no. 3 in *Jianbo* 8 (2013).

[208] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 232-285.

[209] For the physical parameters of bamboo and wooden stationery of documents in the Peking University collection, see table 1 in Beijing daxue chutu wenxian yanjiusuo, "Beijing daxue cang Qin jiandu gaishu," 66.

[210] For the reconstruction of the manuscript's layout, see Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 233-236.

small rivers" (*ta xiaoshui* 它小水).[211] These records have been used in the previous section to discuss transportation efficiency (see Tables 5.1–5.3).

The manuscript includes distance lists for two distinct transportation routes, a mostly riverine meridional (north-south) route between the Qin administrative center of Jiangling in the mid-Yangzi basin and imperial granaries near Luoyang on the Yellow River; and a primarily overland zonal (east-west) route connecting Jiangling and Shaxian 沙羡, an important Qin outpost on the southern bank of the Yangzi some 30 km to the south-west of the modern city of Wuhan.[212] The first of these two lists occupies the upper register on slips 26–66, and the second one, the lower register on slips 24–31. The lower register on slips 38–57 contains seven other itineraries, the shortest of which consists of only two entries, and the longest one, of seven entries. Finally, the rest of the manuscript is composed of individual records of distances between various locations that do not form a continuous itinerary. These records, as well as shorter itineraries, are focused on the three centers of Qin administrative and military presence in the former Chu metropolitan region, Jiangling (near the modern city of Jiangling), Anlu, and Xiao 銷 (probably to the north-east of the modern city of Jingmen 荊門 in Jingmen Municipality, Hubei Province), which were the key nodes in the regional transportation network.[213]

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[211] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 233, slips 1-6.

[212] *Zhongguo lishi dituji*, vol. 2, 11-12.

[213] For Jiangling and Anlu, see *Zhongguo lishi dituji*, vol. 2, 11-12. In contrast to these two administrative centers that are well-known from transmitted evidence, Xiao County passed completely unrecorded in the Han era sources. For its supposed location to the north-east of the city of Jingmen in the vicinity of the modern township (*zhen* 鎮) of Pailou 牌樓, see *Zhongguo dili dituji* bianweihui 《中國地理地圖集》編委會, ed., *Zhongguo dili dituji* 中國地理地圖集 [*Geographical atlas of China*] (Beijing: Zhongguo dabaike quanshu, 2011), 198-199. The logistical importance of Xiao County is suggested by its frequent appearance not only in the distance records in the Peking University collection but also in the Qin and early Western Han event calendars. For the debates about the location of Xiao County, see, for example, Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu," 221-222; Wang Zhuoxi 王琢璽, "Qin Han Xiao xian xiaokao" 秦漢銷縣小考 [A small study on Xiao County in Qin and Han], *Zhongguo lishi dili luncong* 3 (2014): 64-68; Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 254-255. Xin Deyong's reconstruction of transportation routes in the Jianghan region suggests that Xiao County was located at

The longest and by far the most detailed itinerary includes 41 entries and describes the route connecting Jiangling, the capital of Nan Commandery in the Middle Yangzi, and the Liao Granary 聊庾. According to the early second century CE dictionary *Shuowen jiezi* 說文解字 (*Explaining Graphs and Analyzing Characters*), *yu* 庾 granaries were facilities used to store grain shipped by the river (*shui cao cang ye* 水漕倉也).[214] According to the *Shiji* biography of Qing Bu 鯨布, one of the key allies of the Han founder Liu Bang, the Ao Granary 敖倉, the major grain storage to the north-east of Luoyang established by the Qin rulers, was customarily called Ao *yu* 敖庾 under the Qin and at the beginning of Western Han, suggesting that its stocks were replenished by means of riverine shipments.[215] While it is unclear if the Liao Granary belonged to the Ao Granary system as suggested by Xin Deyong, it almost certainly was part of the cluster of granaries in the Luoyang area where grain was accumulated for further shipment to the Qin capital region in the Wei River basin some 300 km to the west.[216]

The date of the manuscript can be determined only tentatively. It certainly postdates the Qin conquest of the lower Han and mid-Yangzi basin (Jianghan region) in 279–278 BCE and

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the juncture of meridional and zonal routes and was one of the key stops on the way from the central Yangzi to the Yellow River basin and Guanzhong. See map 1 in Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu,"187. This explains the frequent appearance of Xiao in the itineraries of Nan Commandery officials travelling to and from the Qin capital in the north.

[214] *Shuowen jiezi zhu*, 9B.444.

[215] *Shiji*, 91.2604. See also Sima Zhen's 司馬貞 (679–732 CE) *Suoyin* 索隱 commentary with the reference to the late-third century CE treatise *Taikang diji* 太康地記 (*Geographical notes of the Taikang reign period*), that explains that Aoyu 敖庾 was the old, pre-Han name of Aocang 敖倉, see *Shiji*, 91.2605, comm. 5. Xin Deyong suggested *yu* could have been open-air grain storage facilities, see Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance de xingzhi he niming wenti," 21. This seems unlikely in view of the importance of Ao Granaries and the volume of grain stored there, which would be exposed to spoilage and decay should it be stored for a relatively long time in the open air.

[216] Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance de xingzhi he niming wenti," 21; Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu," 278.

probably predates Qin's southward expansion after 222 BCE, since the text does not mention locations to the south of Yangzi with the exception of a couple Qin outposts on the southern bank of the river.[217]

Let us consider in more detail the south-north transportation corridor outlined in the longest of the distance lists in the Peking University manuscript, which sheds light on the logistical organization of long-distance shipments of grain in the Qin Empire and the state investment in transportation infrastructure.

The itinerary consists of 41 entries, 34 of which are records of distances between locations on the route, while 7 remaining entries record total distances for each leg of the route (see Map 5.2).[218] The first leg traversed the distance of 84 *li* (c. 34.8 km) between the mouth of the Zhang Canal 章渠 at Changli 長利 and the town of Jiangling, which was the seat of Nan Commandery. As the previous entry in the distance list indicates, Changli was located 20 *li* (c. 8.3 km) up the Ju 沮 River, the northern tributary of the Yangzi, from the location of its confluence with the Yangzi.[219] The canal drained into the Yang 陽 River[220] in the vicinity of Jiangling. The second section of the route proceeded eastward along the Yang River for another 194 li (c. 80.5 km) to its

[217] For this observation, see, for example, Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 281. For the map of transportation routes outlined in the Peking University manuscript, see Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu," 187.

[218] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 234-236, slips 26-66, upper register.

[219] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 234, slip 26. For the map of the course of Ju River in the early imperial period, see *Zhongguo lishi dituji*, vol. 2, 22-23.

[220] The text uses homophonous graph 楊 for river's name.

confluence with the Han River near Jingling 竟陵, another important Qin settlement on the Middle Yangzi.[221]

The third leg of the route was 774 *li* (c. 321 km) long and proceeded up the Han River to its confluence with the eastern tributary, the Yu 育 River, which was the location of Deng 鄧 County founded by the Qin during its campaigns against Chu in the early third century BCE. The itinerary provides no detailed outline for the following section of the route, which terminated at the Wu Granary 武庾, and only records the total travel distance of 1,254 *li* (c. 520 km) along the Han and Yu Rivers between the Wu Granary and the Yang River mouth 楊口, suggesting that the granary was located some 200 km up the Yu River from the place of its confluence with the Han. This almost exactly matches the distance of 480 *li* (c. 199 km) between Deng County and the Wu Granary recorded elsewhere in the manuscript.[222] Another entry records the distance of 491 *li* (c. 203.7 km) up the Yu River between Deng County and the Liang Gate of Wan 宛, the seat of the Qin commandery of Nanyang 南陽 and administrative center of the Nanyang Basin (within the present-day city of Nanyang).[223] The Wu Granary, therefore, was located some 5 km from Wan and probably served as an entrepot on the transportation route between the Yangzi and the Yellow River basin. This granary appears in three other entries in the Peking University distance list, suggesting its importance as a facility where grain was accumulated for further shipment.[224]

[221] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 235, slips 34-39, upper register.

[222] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 234, slip 19, lower register.

[223] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 234, slip 11, lower register.

[224] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 234, slips 17-19, lower register.

From the Wu Granary, the route proceeded further up the Yu River to another granary, Qiuqu 虧渠庾 ("Qiu Canal Granary"), and then to the Yangxincheng Granary 陽新城庾. The total length of this section was 243 *li* (c. 100 km).[225] The name of Qiuqu Granary suggests it was located on a canal, which historical geographers identified with the Luyangguan 魯陽關 Canal that connected the upper flow of the Yu River to the Zhi 滍 River, the western tributary of the Ru 汝 River, which, in turn, was a northern tributary of the Huai River.[226]

The final leg of the route connected Yangxincheng Granary via Luyang 魯陽 and Ruyang 汝陽 ("To the North of Ru River," written as 女陽 in the text)[227] to Luoyang and then to the final destination, the Liao Granary.[228] The overall length of this section is 395 *li* (c. 164 km). However, instead of recording the length of the final section as it does for the other sections of the route, the itinerary ends with the statement that on this final leg, 254 *li* (c. 105 km) are travelled on the loaded carts (*zhongche* 重車).[229] However, the total length of the sections between Luyang and the Liao Granary, which, according to the two recent reconstructions of the route, were travelled overland,

[225] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 236, slips 55-60, upper register.

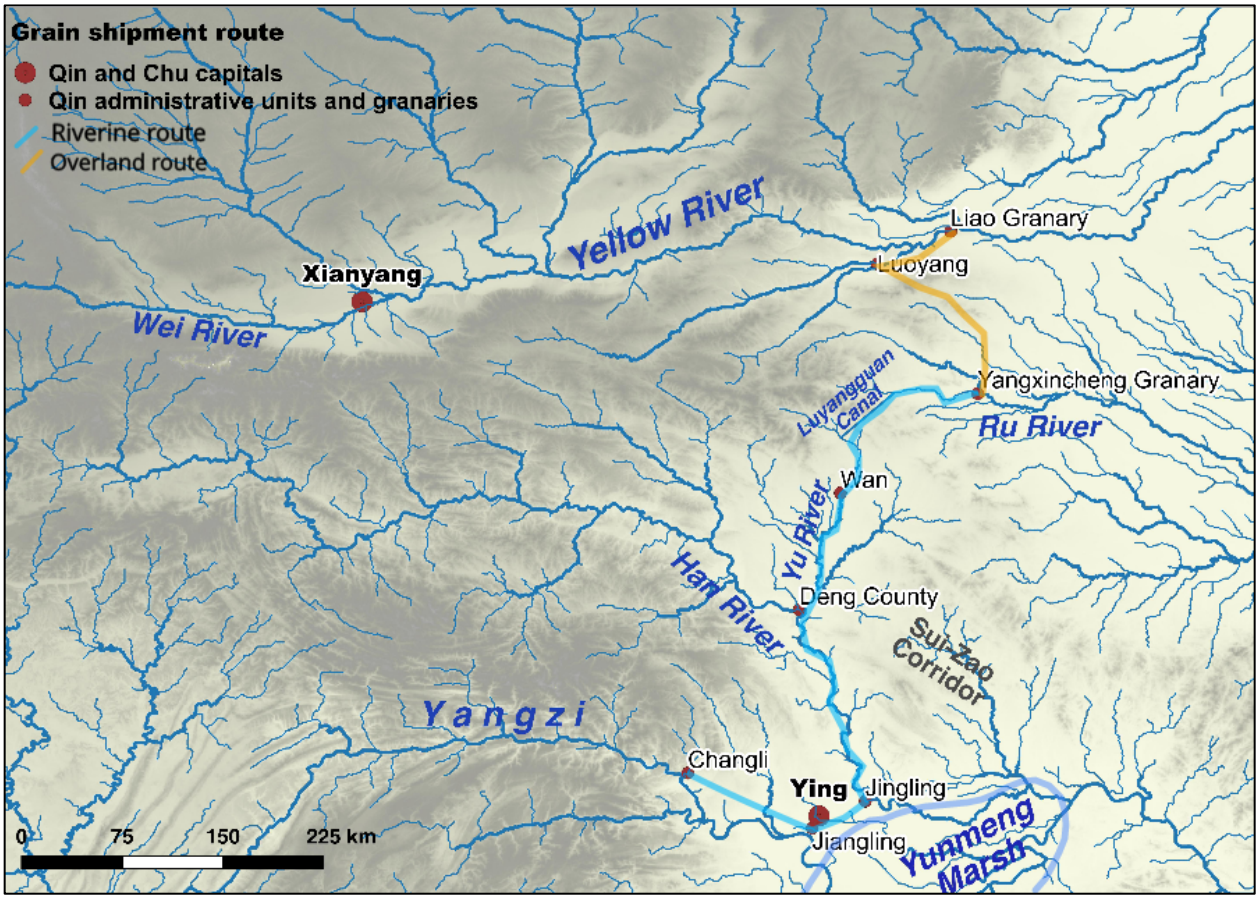
[226] *Zhongguo lishi dituji*, vol. 2, 22-23. On the Luyangguan Canal, see Xu Shaohua 徐少華, "*Shuijing zhu* suozai Luyangguan shui ji xiangguan dili kaoshu" 《水經註》所載魯陽關水及相關地理考述 [A study of Luyangguan Canal as recorded in the *Commentary to the Classic of Rivers* and some related geographic problems], *Lishi dili* 25 (2011): 29-37; Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 266.

[227] This place in not mentioned in transmitted sources. A recent study suggests it was located near the modern city of Ruzhou 汝州 in Henan Province, see Ma Menglong 馬孟龍, "Beijing daxue cang Qin shuilu licheng jiance shidi wuze" 北京大學藏秦水陸里程簡冊釋地五則 [An explanation of five place names in the Qin travel distance manual for waterborne and overland routes from the Peking University collection], *Jianbo yanjiu* 2016. *Qiudong juan*, ed. Yang Zhenhong and Wu Wenling (Guilin: Guangxi shifan daxue, 2017), 188-198. For the location of Ruzhou, see *Zhongguo dili dituji*, 188.

[228] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 236, slips 61-66, upper register. The first entry in this section likely contains a scribal mistake, as it indicates Qiuqu Granary rather than Yangxingcheng Granary as the starting point, see Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 267-268.

[229] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 236, slip 66, upper register.

is 354 *li* (c. 147 km).[230] This can be explained by a scribal mistake substituting "254" for the correct "354."[231] The total length of the route amounted to 2,170 *li*, or about 900 km.



Map 5.2: Routes of grain shipment between the Middle Yangzi and the Yellow River, late third century BCE

The transportation corridor outlined in the Peking University manuscript was not a Qin innovation, or at least not completely so. Its northern part from Luoyang across the Huai-Han

[230] Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu," 245; Ma Menglong, "Beijing daxue cang Qin shuilu licheng jiance shidi wuze," 197.

[231] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 269.

watershed, then across the Nanyang Basin to the confluence of the Yu and Han Rivers was an important transportation and military route as early as the Western Zhou period. It served the Zhou expansion toward the Middle Yangzi. A number of client polities were established here, including Deng 鄧 near the present-day Xiangyang. To the south of Deng, however, instead of following the course of the lower Han River, the route proceeded overland through the Sui-Zao 隨棗 corridor between the Dahong 大洪山 and Tongbai Mountains 桐柏山.[232] Here, the regional polity of Zeng 曾 was key to the Zhou presence to the north of Middle Yangzi. It probably served as an important entrepot for northward exports of the mineral resources in the region.[233]

There is more than one possible explanation for the Zhou preference for the Sui-Zao route instead of the lower Han River. Archaeological and inscriptional evidence seems to suggest that the Zhou control extended to the east of the river, while its western bank might have been controlled by hostile powers that interfered with the shipment of goods.[234] A more important reason may have been the difficulties of bypassing the massive Yunmeng Marsh 雲夢澤 (also known as the Great Marsh, see Chapter 3). The Sui-Zao corridor offered a route to the north-east of the marsh, but travelling along the Han River required construction of a canal network that would utilize many local rivers to connect the Han and Yangzi along the northern lateral of the Yunmeng Marsh (see Map 5.2).

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[232] For a detailed discussion, see Li Feng, *Landscape and Power*, 318-332.

[233] During recent years, archaeologists excavated a number of settlement sites and cemeteries associated with the state of Zeng, which have allowed for a more nuanced understanding of its geography, political connections, and the role in economic exchange networks during the Western and Eastern Zhou periods. See, for example, Fang Qin, Hu Changchun 胡長春, Xi Qifeng 席奇峰, Li Xiaoyang 李曉楊, and Wang Yujie 王玉杰, "Hubei Jingshan Sujialong yizhi kaogu shouhuo" 湖北京山蘇家壟遺址考古收穫 [Archaeological discoveries at the site of Sujialong, Jingshan Municipality, Hubei Province], *Jianghan kaogu* 6 (2017): 3-10; Venture, "Zeng: The Rediscovery of a Forgotten State," 1-32; and Fang Qin, *Zeng guo lishi yu wenhua*, 16-86.

[234] See, for example, Li Feng, *Landscape and Power*, 331-332.

This is what appears to have taken place by the time the Qin itinerary from the Peking University collection was drafted. The manuscript describes at least three alternatives water routes in the lower reaches of the Han River. They connected Jiangling to the mouth of Yu River (that is, it covered the first three sections of the above-discussed itinerary) by making use of the western tributaries of the Han River. The overall length of these alternative routes varied between 954 and 1,606 *li* (ca. 395 km and 666 km, respectively).[235] Xin Deyong suggested that insofar as they made use of the Xia 夏 River, an offshoot of the Yangzi, they were unnavigable in winter when water was low in the Yangzi, and the Xia River was drained.[236]

Xin's observation helps to explain the logistical rationale for the construction of the Zhang Canal, which, according to the *Shiji* "Treatise on rivers and canals" (*Hequ shu* 河渠書) was opened to navigation during the Warring States period and probably served as a supply route for the Chu capital.[237] The canal proceeded along the northern lateral of the Yunmeng Marsh and drew water from the Ju 沮 and Zhang 漳 Rivers, the northern tributaries of the Yangzi. It was therefore immune to seasonal variations in the Yangzi water level that affected the Yunmeng wetland and its rivers.[238]

While some scholars contend that essential elements of this hydraulic system were in place as early as late Spring and Autumn and early Warring States period,[239] others argue that the state

[235] Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu," 186-192; Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 280.

[236] Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu," 214.

[237] *Shiji*, 29.1407.

[238] For a recent discussion of the ecology of the Yunmeng wetland in the late first millennium BCE, see Lander, "State Management of River Dikes in Early China: New Sources on the Environmental History of the Central Yangzi Region," *T'oung Pao* 100.4-5 (2014): 325-362.

[239] Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu," 203.

of Qin was instrumental in developing the already existing network of smaller canals into a continuous transportation corridor between the Yangzi and Han rivers.[240] Yet others believe that the whole project was modification of existing waterways rather than an entirely artificial canal.[241] The central place its description occupies in the Peking University manuscript suggests it was key to the system of meridional grain shipment in Qin. The text mentions some of the canal infrastructure, such as the Yang Dike 羊堤 (rendered as 題 in the manuscript) and the Metropolitan Office of Boats (*duchuan* 都船).[242] The state-sponsored dike construction in the Jianghan region textually attested for the mid-Western Han period may have started as the engineering effort to maintain the Zhang Canal.[243]

Another important component of the shipment infrastructure was a chain of granaries along the transportation route. Four such granaries are mentioned in the itinerary, and another one, the Yimin Granary 宜民庾, was located in the vicinity of Yuan, the center of the Qin Nanyang Commandery.[244] Together with the Wu Granary, it formed the cluster of Nanyang storage facilities, which may have included other granaries of which we are so far unaware and where the tax grain from the Middle Yangzi, Han, and Nanyang Basin was accumulated for further shipment northward. Before leaving the Han River valley, grain was shipped to the Qiuqu Granary and then

[240] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 281.

[241] Lander, "State Management of River Dikes in Early China," 355.

[242] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 233, slips 9-10, lower register; 234, slips 28-29, upper register.

[243] For the Western Han dikes in Jianghan regions, see Lander, "State Management of River Dikes in Early China," 325-362.

[244] Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 234, slip 12, lower register.

at the Yangxincheng Granary, which was the terminus of the waterborne part of the route.[245] Finally, the Liao Granary near Luoyang probably belonged the massive storage complex known as the Ao Granary where grain shipments not only from the Yangzi and Han valleys but also from the lower Yellow River and the Huai River basin converged.

Of the 900 km overall length of transportation route, only the final leg of less than 150 km was travelled overland between the upper flows of the Yu River, itself a tributary of the Han River, and the Yiluo 伊洛 basin centered on Luoyang. This was a densely populated region traversed by travel routes from as early as the beginning of the second millennium BCE, which were used to transport bulk materials such as charcoal and lithic objects.[246] Even so, this final section should have presented considerable challenge to the efficiency of interregional grain shipments. Even under the (probably unrealistic) Qin statute requirements for loaded carts to travel 25 km per day, it would have taken them six days to complete the overland section between Luyang and the Liao Granary.

If we apply the numbers from the above-quoted late Western Han arithmetic manual that refers to an oxcart carrying 25 *hu* (c. 500 liters) of grain and served by a team of six men (see section 2.1 in this chapter), each of whom received a standard daily ration of $^{2}/_{3}$ *dou* (c. 1.3 liter)

[245] According to Yan's analysis, see Yan Changgui, "Beijing daxue cang shuilu licheng jiance," 266-267. Xin Deyong argued, somewhat unconvincingly, that Yangxincheng ("The New Yang Town") was the newly founded center of Yang County 陽縣 located considerably to the east of the route, see Xin Deyong, "Beijing daxue cang Qin shuilu licheng jiance chubu yanjiu," 169-183; Xin Deyong, "Beijing daxue cang shuilu licheng jiance yu Zhanguo yiqi Qin mo de Yangji Yangcheng wenti" 北京大學藏水陸里程簡冊與戰國以迄秦末的陽暨陽城問題 [Travel distance manual for waterborne and overland routes from the Peking University collection and the problem of Yangji and Yangcheng], *Jiushi yudi wenbian* 舊史輿地文編 [*Collected studies in historical geography of ancient history*] (Shanghai: Zhongxi, 2015), 107-121. Xin's reconstruction suggests an inexplainable detour on the otherwise relatively direct south-north route.

[246] Liu and Chen, *State Formation in Early China*, 64-69.

of grain,[247] the team would have consumed some 47 liters of grain, or almost 10% of their cart's load, on one-way travel. Even if they complied with an extremely demanding speed requirement for empty carts, another five days spent on the way back would result in the consumption of another 40 liters, to the total falling just a little short of 20% of grain shipped, on the assumption that oxen were living on fodder available along the route and did not have to be fed with grain carried by the cart.

Needless to say, this calculation is very provisional. Yet, since the numbers are probably biased in opposite directions – less than six people sufficient to serve a cart travelling considerably slower than prescribed by the statutes –the resultant estimate of the expenses involved in overland transportation should not be too misleading. Even a relatively short-distance shipment between the two river systems severely curtailed transportation efficiency and potentially defeated the whole project. In this regard, availability of a geographically unique major north-south waterway, the Han River and its tributaries complemented by canals in its lower and upper reaches, allowed to partly reorient grain supplies, previously destined for the Chu capital on Middle Yangzi, to the north where the Qin government was struggling to sustain the growing non-agricultural population at the imperial core in the Wei River basin.

Transporting supplies, weapons, and materials to and from the southern frontier

The Qianling county archive provides an exceptionally detailed sketch of shipment operations at the southern frontier of the empire between 222 and 209 BCE. Most of the recorded transportations were local; however, the county was also involved in some long-distance shipments.

[247] According to Qin law, such rations were due to convicts not engaged in particularly onerous works such as construction, see *Shuihudi*, 33-34, slips 55-56; Hulsewé, *Remnants*, 32-33.

What was probably the most typical shipment operation in recorded in a document from 213 BCE that reflects bureaucratic communication concerning the transportation of tax grain from Qiling District to the Qianling county granary:[248]

卅四年七月甲子朔癸酉，啟陵鄉守意敢言之：廷下倉守慶書言：令佐贛載粟啟陵鄉。今已載粟六十二石，為付券一上。謁令倉守敢言之。·七月甲子朔乙亥，遷陵守丞卽告倉主：下券，以律令從事。/壬手。/七月乙亥旦，守府印行。（正）
七月乙亥旦，□□以來。/壬發。恬手。（背）

Front side
Thirty-fourth year [of King Zheng, i.e., the First Emperor], in the seventh month, *jia-zi* being the first day of the month, on the day *gui-you* (August 3th, 213 BCE), Yi, the provisional Head of Qiling District, dares to report this: The document issued by Qing, the provisional Supervisor of the County Granary, states [the following]: "Order Gan, the Assistant [to the office of Granary] to ship grain from Qiling District." Now 62 *shi* (c. 1,240 liters) of grain have already been shipped, and [we are] issuing one payment tally and submitting it [to the county court].[249] We ask for an order to be given to the provisional Supervisor of the Granary. Dare to report this.
· In the seventh month, the first day of the month being the day *jia-zi*, on the day *yi-hai* (August 5th, 213 BCE), Yi, the provisional Vice-Magistrate of Qianling, instructs the chief of the [Office of] Granaries: The tally is forwarded [to you], proceed on this matter according to the statutes and ordinances. / Drafted by Ren. / In the seventh month, on the day *yi-hai*, in the morning, dispatched with Ang, the guard at the [county] court.[250]

Back side
In the seventh month, on the day *yi-hai* (August 5th, 213 BCE), in the morning, delivered by… / Opened by Ren.
Drafted by Tian.

[248] *Liye Qin jiandu*, vol. 1, 349, tablet 8-1525.

[249] Payment tallies (*fuquan* 付券) recorded the transfer of materials between government offices and had notched on the side of the tablet that reflected the amount mentioned in the text.

[250] The term *shoufu* 守府 could refer, alternatively, to the office of the commandery governor or to a person in charge of guarding the county court, see *Liye Qin jiandu*, vol. 1, 45-46, n. 17.

Grain shipments from districts to the county granary were relatively small in terms of volume, reflecting the limited productive capacity of Qianling agriculture.[251] A receipt of 48 *shi* (c. 960 liters) of grain in the county granary in May 209 BCE probably records another intra-county shipment.[252] Such shipments were typically carried out by small groups of convicts, conscripted farmers, and soldiers who, in all likelihood, crewed boats used to transport grain.[253]

Yet, in view of the exceptionally high proportion of officials and military to farmer population in Qianling County, it probably never achieved self-sufficiency and had to import much of its grain. Aware of these conditions, the Dongting Commandery authorities ordered other counties in the commandery to supply grain to Qianling.[254] One of such donors was Yuanling 沅陵 County at the confluence of the Yuan and You Rivers, which, according to some scholars, for some time served as the seat of the Dongting governor (see Map 3.5).[255] The shipment of 2,000 *shi* (c. 40,000 liters, equivalent to over 31 tons) of grain from Yuanling to Qianling, recorded in one of the Liye documents, was twenty-five times larger by volume than the amount of tax grain in Qianling County recorded at the beginning of the first year of the Second Emperor of Qin (210–209 BCE).[256] Imports from outside the county should have been instrumental in filling the Qianling

[251] For another record of grain shipment from Qiling District to Qianling county granary, see *Liye Qin jiandu*, vol. 1, 55, tablet 8-73.

[252] *Liye Qin jiandu*, vol. 2, 70, tablet 9-117.

[253] For the convict crews of two assigned the task of grain transportation (*zai su* 載粟), see *Liye Qin jiandu*, vol. 1, 98-99, tablet 8-162; vol. 2, 165, tablet 9-623. Sometimes one single convict could be assigned the management of grain shipment as in *Liye Qin jiandu*, vol. 1, 120-121, tablet 8-239. For a group of four conscripts, some of whom were employed to transport grain, see *Liye Qin jiandu*, vol. 1, 375, tablet 8-1665. For a group composed of soldiers and convicts, see *Liye Qin jiandu*, vol. 2, 122-124, tablet 9-436+9-464.

[254] *Liye Qin jian bowuguan cang Qin jian*, 60, tablet 12-1516.

[255] See Xu Shaohua and Li Haiyong, "Cong chutu wenxian xi Chu Qin Dongting, Qianzhong, Cangwu zhu junxian de jianzhi yu diwang," 63-70.

[256] *Liye Qin jiandu*, vol. 1, 369, tablet 8-1618. I used the website Aqua-Calc to convert grain volume to weight, see https://www.aqua-calc.com/calculate/volume-to-weight. For the amount of 79 *shi* (c. 1,580 liters) of grain received as

granary that, at one point, experienced a shortfall of as much as 1,154 *shi* (c. 23,000 liters) of grain. It is difficult to imagine how this could be covered by meager revenues from local agriculture.[257]

Three documents dated from 220 BCE attest to the transregional transportation of military equipment (*bing* 兵) from Qianling and possibly also other counties in Dongting Commandery to the Qin Authority of the Capital Region (*neishi* 內史) and to the commanderies of Ba, Nan, and Cangwu.[258] The latter three were located along the Yangzi River and were relatively easily accessible by water, but transportation to the metropolitan region would have involved an overland section and probably proceeded along the grain shipment route discussed above. For Qianling, this was probably a major logistical operation. Transportation to the capital region alone involved four large, six-*zhang* boats managed by specialized personnel (*chuantu* 船徒) along with the labor conscripts. The scale of this operation warranted special proclamation by the Dongting Commandery governor to instruct subordinates on the order of mobilization for various pools of labor (see Chapter 2).

Such long-distance transportations were certainly putting considerable strain on the limited labor resources of individual counties, which probably explains why they are so rarely recorded in the Qianling archival documents. On a more regular basis, transregional shipments such as the one recorded in the Peking University manuscript as well as the transportation of local tribute goods to the capital should have been organized at the commandery level. This distance list has the commandery center as its starting point.

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land tax (*zu su* 租粟) by Qianling County government in 209 BCE, see *Liye Qin jiandu*, vol. 2, 72-73, tablet 9-128+9-204. It is unclear whether this was the total amount of land tax available at the local granary at that moment. Exactly the same volume of tax grain is recorded in another document, see *Liye Qin jiandu*, vol. 2, 205, tablet 9-785+9-1259.

[257] *Liye Qin jiandu*, vol. 2, 58, tablet 9-63.

[258] *Liye Qin jiandu*, vol. 1, 341, tablet 8-1510; *Liye Qin jian bowuguan cang Qin jian*, 68-69, tablets 16-5, 16-6.

Long-distance transportation of grain and military equipment discussed in this section were part of a larger system of the state economy that included extraction, production, and redistribution of materials and goods. In some cases, such as the munitions shipment from Dongting, we have some details of planning on the side of the local authorities and can reasonably assume the centralized planning through which the efforts by various commanderies involved were coordinated. In other cases, such as the grain shipment from the Middle Yangzi to the imperial granaries at Luoyang, we know next to nothing about the organizational aspects. Qin and Han legal statutes with their standards of travel speed for grain-transporting a conscripts imply considerable degree of state involvement.

The example of the Qin "Great Canal" also suggests that the extensive network of man-made waterways that complemented natural rivers and made possible new, more efficient transportation corridors was the result of many decades, even centuries of infrastructural investment by the states seeking to divert the flows of goods and resources from ever vaster territories toward their political centers. The composition of tributary goods as well as the geographical scale and density of redistribution networks affected the nature of transportation infrastructure and the forms of state involvement in its construction and maintenance. Collection, transportation, concentration, and redistribution of tribute paid in silk textiles implied a very different infrastructure and a much lesser intensity of centralized reshaping of the transport system than collection, transportation, concentration, and redistribution of grain. At the same time, the fact that some centers such as Luoyang functioned as the major entrepots in centralized cross-regional networks from the Western Zhou (and probably earlier) to the dawn of the imperial era

points at the long-term continuity in connectivity networks, the phenomenon that we already explored at some length in Chapter 3.

The state-sponsored movements of goods and resources have always been inextricable from socio-political objectives. The Zhou royal court and succeeding regional polities deployed metals, silks, and other prestige materials received as tribute or exchange goods from distant regions to boost their client networks and alliances. The early empires pursued the goal of reshaping the human landscape of the East Asian subcontinent by creating new population centers nurtured by sustained flows of people, information, and goods. The following part of this section examines the human dimension of the "state on the move."

3.2. State-organized human mobility

Coerced migration was practiced by various polities from the beginning of the written record and probably long before. In his study of relationships between the "state" and "non-state" populations in South-East Asia, James Scott argued that forced amassing of manpower within the geographical core was key to the building, strengthening, and expansion of early states in the region.[259] Anthony Barbieri-Low demonstrated that the territorial consolidation of the early Qin state in the Wei River basin during the Spring and Autumn period involved regular deportations of the conquered *rong* 戎 people.[260]

State-organized resettlements scaled up during the late Warring States and especially the imperial Qin period. The recorded examples, some of which are going to be analyzed below in more detail, included the mass relocation of the aristocratic families of the vanquished states to

[259] Scott, *The Art of Not Being Governed*, 64-97; Scott, *Against the Grain*, 150-182.

[260] Barbieri-Low, "Coerced Migration and Resettlement," 7-9.

Guanzhong immediately on completion of the imperial conquests in 221 BCE; resettling merchants and industrialists from the former states of Zhao and Wei to Sichuan and Nanyang; and the members of various degraded social groups to the newly founded commanderies in the deep south, Guilin 桂林, Xiang 象, and Nanhai 南海.[261] A large number of smaller relocations passed under the radar of official historiography but are attested in the excavated administrative and legal documents. Scholars have characterized the "filling in" (*shi* 實) of the frontiers and the capital region as key strategies of empire-building in ancient China.[262] Organization of these population moves was at the heart of the state economy, and contemporary authors quoted the failure to efficiently manage state-organized human mobility among the main reasons of state collapse, especially with regard to the fall of the Qin Empire.

Important as they were, permanent resettlements were just part of state-organized human mobility in the early empires. The best-documented group of movers were government functionaries whose regular travels were essential for the functioning of the state. The infrastructure of geographic mobility and territorial control discussed earlier in this chapter was developed primarily for the use by the travelling state personnel, both civil and military. This section starts with the analysis of state-organized and state-induced human mobility, particularly the impact of major resettlement projects on the economic geography of the empire. Then I shift the focus to the mobility of state officials as reflected in excavated texts, first of all, in the Qianling County archive unearthed at Liye.

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[261] The former episode is discussed in more detail below. For the resettlement of merchant and industrialist households of the "eastern states" to Sichuan and Nanyang, see *Shiji*, 129.3277-3278. For the resettlement of merchants, sons-in-law residing in their wives' households, and captured absconders to the newly founded southern commanderies in 214 BCE, see *Shiji*, 6.253.

[262] See, for example, Sun Wenbo, "Qin Han diguo "xindi" yu xi, shu de tuixing," 65-73; Barbieri-Low, "Coerced Migration and Resettlement," 1-22.

State-organized migrations: costs and socio-economic impact

Within less than a year after the proclamation of the Qin Empire, its ruler ordered a massive resettlement of 120,000 "powerful and wealthy" (*haofu* 豪富) households from across the recently conquered territories of the Warring States to the imperial capital Xianyang.[263] By a very conservative assumption that each household consisted of five individuals, the size of a typical commoner household quoted in the written sources of early imperial period, this party amounted to at least 600,000 individuals.[264] The actual number should have been much larger, considering these were influential and wealthy families with extensive social networks and many clients, retainers, and dependents of all sorts.[265] On the other hand, not all of them might have reached the destination being settled elsewhere along the route or having managed to abscond during the long (see below) travel.

The total size of the Guanzhong population during the Qin imperial period is unknown. By the end of the Western Han some two centuries later population census recorded 2,436,360

[263] *Shiji*, 6.239.

[264] For a typical nuclear household of five individuals, see, for example, *Hanshu*, 24A.1132; *Chunqiu fanlu yizheng* 春秋繁露義證 [*Luxuriant gems of the Spring and Autumn*], ed. Su Yu 蘇輿 (Beijing: Zhonghua, 1992), 8.240. In fact, aristocratic and wealthy families referred to in the *Shiji* should have been considerably larger than commoner households.

[265]Some of the Qin imperial ordinances were specifically devoted to the resettlement of "followers" (*congren* 從人) of the aristocratic families of the recently conquered eastern states. One ordinance prescribes the exile of the family members and retainers of a certain Zhao general Yue Tu 樂突 to eastern Sichuan and the resettlement of the "followers" from the states of Wei, Chu, Qi, and the Dai 代 region (formerly part of the state of Zhao) to Dongting Commandery to the south of Middle Yangzi. See *Yuelu shuyuan cang Qin jian*, vol. 5, 43-44, slips 13-18. That some of these "followers," indeed, ended up in Dongting is attested by a document from the Qianling county archive that complains about their inefficiency as agricultural workers and requests for permission to transfer them to other tasks such as earthworks. See *Liye Qin jiandu*, vol. 2, 33-35, tablet 9-22.

residents.[266] Under the Qin, numbers were almost certainly somewhat lower, although exactly by how much is unclear. Assuming that, after all corrections, the number of 600,000 resettlers reflects the order of magnitude of this migration project, an influx of a group probably amounting to as much as one third of the host community would have exerted enormous strain on the ecology and resources of the recipient region. Moreover, the *Shiji* account explicitly states that these households were settled in the capital. Their arrival would have resulted in a dramatic surge in agriculturally nonproductive urban population. By the end of the Warring States period arable land in the Wei River basin was already fully brought under cultivation, so a massive increase in the local grain output to match such a steep population growth was unrealistic.[267] The only alternative solution was importing supplies from outside of the region.[268] This may have been the context for the opening up of the grain transportation route between the Middle Yangzi and the imperial granaries in the Luoyang area outlined in the itinerary from the Peking University collection.

Precise numbers are lacking for most of other large-scale resettlements carried out by the Qin authorities before and after the imperial "unification." For example, it is known that the Sichuan basin was one of the primary destinations for various groups of exiles who for one reason or another were deemed undesirable by the central government. These included the supporters of Lao Ai 嫪毐 who staged an unsuccessful coup in 238 BCE; merchants and industrialists from the

[266] *Hanshu*, 28A.1543-1548.

[267] For the archaeological and palaeoenvironmental evidence for the agricultural development of Guanzhong during the Warring States period, see Lander, "Environmental Change and the Rise of the Qin Empire," Chapter 5.

[268] Correlation between the intensity of state-organized resettlement to the capital region and grain imports is attested for the Western Han period, see Nylan, "Supplying the Capital with Water and Food," in Michael Nylan and Griet Vankeerberghen, eds. *Chang'an 26 BCE: An Augustan Age in China* (Seattle and London: University of Washington Press, 2015), 99-130, esp. 109-110.

conquered states on the Great Plain; and convicts sentenced to penal labor.[269] Following the Qin campaign against the Xiongnu and occupation of Ordos in 215 BCE, military colonies were established along the northern frontier. According to the *Shiji*, the Qin army that fought the Xiongnu under the general Meng Tian 蒙恬 consisted of 300,000 soldiers many of whom ended up among the frontier settlers.[270]

What is more certain is that the colonization campaign in the north proved spectacularly unsuccessful. Just six years after Meng Tian's conquests, the Qin Empire started to crumble, and frontier settlers immediately took opportunity to return home.[271] This backward migration forestalled the major problem that state-organized frontier settlement would encounter over the rest of the early imperial era and beyond. While the state was investing enormous resources and organizational efforts in agricultural colonies on the border with the Steppe, their residents were moving back to their often long-forsaken homes as soon as an opportunity turned up. Special laws issued to prevent this process more often than not were to no avail.[272]

The story of the first and failed attempt to colonize the northern frontier makes us ask questions about costs and efficiency of state-organized migration in the Chinese empires. What was the cost of resettlement campaigns for the imperial state in terms of the percentage of its annual revenue? How large were the migrant groups that could be moved on a more or less regular

[269] For the Lao Ai supporters, see *Shiji*, 6.227. For metallurgists from the former state of Zhao resettled to Sichuan, see *Shiji*, 129.3277. For convict laborers directed to the Shu Commandery in Sichuan, see, for example, *Yuelu shuyuan cang Qin jian*, vol. 4, 145-146, slips 232-236; *Shuihudi*, 155-156, slips 46-49; Hulsewé, *Remnants*, 195-196.

[270] For the size of Meng Tian's northern army, see *Shiji*, 6.252.

[271] *Shiji*, 110.2887.

[272] For a discussion, see Ge Jianxiong, Cao Shuji 曹樹基, and Wu Songdi 吳松弟, *Jianming Zhongguo yimin shi* 簡明中國移民史 [*A concise history of migration in China*] (Fuzhou: Fujian renmin, 1993), 71-84; Sun Wenbo, "Qin Han diguo "xindi" yu xi, shu de tuixing," 65-73.

basis, and what qualified as a truly challenging, large-scale project? Under which conditions could these latter nevertheless be carried out? What were the socio-economic impacts of state-organized migration? The Qin imperial period proved too short to provide answers, but the patterns it revealed endured into the following Han era as long-term trends in the imperial management of population and human mobility.

The main destinations of state-organized migration in the early Chinese empires were the metropolitan region, which in the Qin and Western Han empires was located in the Wei River basin; and the imperial frontiers, especially the northern and north-western ones.

In both the Qin and the Han empires, resettlements to the capital region pursued the double goal of intensifying the local economy and uprooting the power of aristocratic clans and wealthy landowners in the eastern part of the empire.[273] Such relocations were particularly important after the accession of a new dynasty, so the most massive episodes took place in 221 and 199 BCE, soon after the foundation of the Qin and Han empires, respectively.

For the Qin imperial period, we are notified of three resettlement campaigns in Guanzhong, the first of which brought in 120,000 elite households from the recently conquered eastern states in 221 BCE. The following two took place in 212 BCE and jointly involved 80,000 households, 30,000 of which were moved from the capital Xianyang to the newly founded town near the First Emperor's burial complex at Mt. Li 麗山, and another 50,000 to Yunyang 雲陽, another satellite town in the vicinity of the imperial capital and the southern endpoint of the Straight Road.[274] The

[273] See, for example, Michael Loewe, "The Tombs Built for Han Chengdi and Migrations of the Population," in *Chang'an 26 BCE*, 201-217, esp. 213-214.

[274] *Shiji*, 6.256.

two latter resettlements can probably be considered as adjustments made necessary by the overpopulation of Xianyang on the arrival of the enormous group of eastern resettlers.

Migration entailed costs associated with the disruption of habitual lifestyles, liquidation of immobile property, travel expenses, and settlement at a new place. In the case of state-organized migration, these costs were partly shouldered by the government. Available textual evidence on the organizational and logistical aspects of resettlement is scanty and primarily focuses on convict criminals serving terms outside of their home areas. Parties of convict criminals escorted under official supervision were required to progress at the speed of 60 *li* (c. 25 km) per day and to stay at designated places overnight. When such groups were delayed in the counties through which they traveled, local officials were heavily fined, stripped of their social ranks, or sentenced to terms of penal frontier service.[275] Most convicts made the travel on foot, with the exception of those whose feet were chopped off in mutilating punishment. Travelling parties had carts to carry their meagre belongings. These carts were pulled by oxen but probably more often by convicts themselves. The same conditions applied to conscripted frontier soldiers on the march to their service destinations.[276]

As all "official" travelers on state commission, convicts and conscripts were receiving food rations at the state-managed storage facilities along the route of their journey. In terms of travel management, speed requirements, and provisioning, individuals permanently resettled under the

[275] *Yuelu shuyuan cang Qin jian*, vol. 4, 145-146, slips 232-36. See also *Shuihudi*, 155-156, slips 46-49; Hulsewé, *Remnants*, 195-196.

[276] Zhao Chongliang 趙寵亮, "Qin Han shuzu fubian wenti chutan" 秦漢戍卒赴邊問題初探 [A preliminary discussion of the ways Qin and Han frontier soldiers travelled to their place of service], in Zeng Lei et al., eds., *Feiling guanglu*, 136-156.

government supervision were subject to similar conditions.[277] That travel expenses were a serious concern for the government is suggested by legal regulations that insisted on rigorous control over travel speed and repeatedly emphasized that no delays would be tolerated.

How large were these expenses? No ready number is available in transmitted or excavated records. Under the Western Han, the typical size of a resettlers party to the site of a new mausoleum town appears to have been 5,000 households.[278] Assuming an average of five individuals per household, these would amount to 25,000 individuals. Today, a hypothetical travel from Linzi 臨淄, where the capital of the state of Qi was located, to Guanzhong would take around 900 km, or c. 2,000 *li*.[279] Of course, it was considerably longer in antiquity. Migrants would be heavily burdened with their belongings, and the elderly and children could hardly be expected to march very fast, so the whole party was probably progressing relatively slowly. The abovementioned travel speed of 60 *li* (ca. 25 km) per day prescribed by the Qin statute for the convict parties was almost certainly unrealistic, but let us use this figure as the only one recorded in sources for migrating groups.

The travel would require 36 days, in course of which each individual was receiving a subsistence daily ration of one *dou* (two liters) of grain, such as the one established for travelling officials (see below). This would amount to 36 *dou* (or 3.6 *shi* = 72 liters) for the whole period of travel for one individual, or 90,000 *shi* (ca. 1.8 mln liters = 1,404 tons of millet grain) for the entire

[277] For a discussion of the organization of resettlement of Qi aristocratic clans to Guanzhong at the beginning of Western Han period, see Yang Jian 楊建, *Xi Han chuqi jinguan zhidu yanjiu* 西漢初期津關制度研究 [*A study of regulation of ford and passes in the beginning of Western Han*] (Shanghai: Shanghai guji, 2010), 116-121.

[278] See, for example, *Hanshu*, 10.317.

[279] While the geographic origins of 120,000 households resettled in 221 BCE are not specified beyond the general remark that they were relocated from the recently conquered eastern states, the 100,000 individuals moved to Guanzhong at the beginning of the Western Han belonged to the five great aristocratic clans of the states of Qi and Chu, see *Shiji*, 8.386, 99.2720; *Hanshu*, 1B.66.

group. Even though women and children were receiving smaller rations than adult men, this figure is still a gross underestimate based on unrealistically short travel distance and fast travel speed. It also does not take the provisioning of cart-pulling oxen or supervising officials into account.[280] When all these factors are considered, the figure should probably be at least doubled.

How large a portion of the central government's revenue do these numbers represent? While no reference is available for the Qin, some two hundred years later, at the end of the Western Han period, a relatively populous and economically prosperous province, the Donghai 東海 Commandery in what is now southern Shandong and northern Jiangsu, reported an annual grain revenue of 506,600 *shi* of grain, of which 412,600 were spent locally and the remaining 94,000 *shi* offered to the central government as available surplus.[281] It remains unclear whether this was eventually shipped to the state granaries elsewhere or stockpiled within commandery's territory for use by the central authorities. On the assumption that Donghai represented roughly 1/40 of the imperial revenue, the total volume of annual grain reserves of the central government would have been 3,760,000 *shi* (ca. 58,656 tons of millet grain).[282] Resettlement of 5,000 households would have required an absolute minimum of about 2.4% and probably closer to 5% of these reserves. The resettlement of 120,000 households in 221 BCE would have taken some 58% of the annual grain revenue by the most conservative estimate and more likely somewhere around 100%. The migrants would also need to be supplied at the place of destination for a considerable period.

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[280] With regard to the speed of travel, at the beginning of 1127 CE the victorious Jurchen resettled a large group of Kaifeng residents to Yanjing some 650 km to the north. It took them two months to reach the destination, suggesting a more realistic travel speed of 10-11km per day. See Patricia Ebrey, "State-Forced Relocations in China, 900–1300," in Ebrey and Paul Smith, eds. *State Power in China, 900–1325* (Seattle: University of Washington Press, 2016), 307-340, esp. 323.

[281] *Yinwan Han mu jiandu*, 78.

[282] See Scheidel, "State Revenue and Expenditure," 151-152.

These estimates, of course, should be qualified in many ways. Some of the resettlers could have been asked to finance their migration from their private resources. However, while under normal circumstances the wealthy households would have been well-positioned to do so, in the case under consideration, much of their property had recently been destroyed or sacked by the victorious Qin armies. One should also consider the composition of state revenue, which was considerably more monetized by the end of Western Han period than in the late third century BCE, meaning that tax grain at the time of the First Emperor represented a much greater percentage of state's income than at the time when Donghai Commandery statistics were composed. On the other hand, on completion of the Qin wars of unification, the tax base was almost certainly much smaller than after two centuries of relative peace and economic prosperity under the Western Han. I therefore suggest that the above estimate, rough as is, is nevertheless instructive for appreciating the pressure the 221 BCE resettlement exerted on the Qin finances.

This estimate goes long way in explaining why, throughout the history of the early empires, the large-scale resettlement projects such as the one undertaken by the First Emperor in 221 BCE took place either immediately on completion of massive internal warfare or in the wake of a major natural disaster such as the Yellow River floods. While warfare and floods caused enormous economic damage, they also generated masses of displaced population who could be deployed in colonization campaigns on a scale unachievable in regular state-organized resettlements. Table 4.3 summarizes the relationship between natural and man-made calamities and the large-scale, state-organized resettlement projects during the Qin and Western Han periods.

Table 5.5: Largest state-organized resettlements, third to first centuries BCE

Date BCE	Resettlement event	Number of resettlers	Preceding events
221	Resettlement of aristocratic and wealthy families from the conquered eastern states to Guanzhong	120,000 households	Campaigns of Qin unification
199	Resettlement of aristocratic families from the states of Qi and Chu to Guanzhong	100,000 individuals	Civil wars of Qin succession
After 132	Flood refugees resettled to Shuofang 朔方 Commandery and other areas in the northwest	700,000 individuals	Yellow River dike breach and subsequent floods
127	Volunteers resettled to Shuofang Commandery	100,000 individuals	
119	Population of the eastern regions destitute after the floods resettled to northern, northwestern, and southeastern commanderies	725,000 individuals	Yellow River dike breach and subsequent floods
107	Flood refugees from the eastern regions	400,000 individuals (?)	Yellow River dike breach and subsequent floods

Needless to say, the social background and circumstances of these migrants varied considerably. What makes these cases similar is the strong political motivation on the side of the central government to manage resettlements in spite of the enormous pressure on the state finances. As the powerful aristocratic lineages of the eastern states were perceived as an existential threat to the newborn empires that had to be reduced at all costs, so the settlement of flood refugees was not something that the government was in a position to postpone or disregard without risking major social turmoil. In the latter case, resettlement was facilitated by the fact that refugees were minimally demanding in terms of the conditions expected en route and at the destination, thus presenting a large pool of "cheap" resettlers.

Efficient as they may have been in the short term, these gargantuan migration campaigns could only be carried out rarely considering their costs for the government. In order to exert a sustainable demographic and socio-economic impact, they had to be augmented by more stable flows of migrants to the target regions. Again, I will focus on the better recorded case of the metropolitan region of Guanzhong to illustrate the relationship between state-organized and private migration.

It has already been noticed that the influx of 600,000 new residents to the Qin capital in 221 BCE could not but have had considerable social and economic consequences. The grain shipment route from the Middle Yangzi basin may have been developed in response to the soaring demand for grain imports. A new wave of urbanization in Guanzhong represented by the construction of satellite towns around the capital also commenced in the wake of this resettlement and continued into the Western Han when no less than nine towns were founded near emperors'

mausolea.[283] While some scholars argued that migrants brought to the region at the beginning of the early imperial period formed the backbone of Guanzhong's urban population,[284] it needs to be borne in mind that pre-modern urban populations were subjects to attrition (the so-called "urban graveyard effect") resulting in demographic decline at the annual rate of approximately 1% for large cities such as Xianyang/Chang'an.[285]

Available numbers for the settlements in Western Han metropolitan area suggest this situation applied to this densely urbanized region of the empire. Of three major urban centers of Chang'an, Changling 長陵, and Maoling 茂陵, the household to population rates in the former two were, respectively, 1:3.0 and 1:3.5, and only the latter one probably had a positive population dynamics with the rate of 1:4.5.[286] Steady arrival of new residents from the countryside was needed for reproduction and expansion of the Guanzhong cities.

Resettlement strategies adopted by the Qin and Han authorities suggest awareness of the need to generate an economic spillover effect from isolated state-organized migration events, which would guarantee continuous flow of voluntary immigrants to the metropolitan region. Starting from the 221 and 199 BCE relocations of the elites of conquered eastern states, the imperial government was particularly targeting wealthy groups for resettlement to the capital and its satellite cities. In addition to the liquid wealth they were bringing to the metropolitan region, under the Western Han resettlers were often additionally granted considerable amounts of cash

[283] See Loewe, "The Imperial Tombs of the Former Han Dynasty and Their Shrines," *T'oung Pao* 78.4/5 (1992): 302-340.

[284] See, for example, Ge Jianxiong et al., *Jianming Zhongguo yimin shi,* 60.

[285] See Scheidel, "Human Mobility in Roman Italy, I: The Free Population," *The Journal of Roman Studies* 94 (2004): 1-26, esp. 15-17.

[286] *Hanshu* 28A.1543-1548; Loewe, "The Tombs Built for Han Chengdi," 213.

that was partly used to pay for residence construction as the government provided only land plots for urban residences.[287] Some of this money was also spent on food imports, as suggested by the twelve-fold increase (20,000 to 245,000 tons) in grain imports to Guanzhong between 129 BCE and 2 CE coinciding with the period of intensive construction of mausoleum towns and concomitant resettlements to the metropolitan region.[288]

State-orchestrated relocation of liquid wealth to the capital region created enormous concentration of effective demand for agricultural and manufactured products as well as for labor, which made possible not only the market-oriented price control and logistical initiatives of the central government such as grain shipments to the regions of high demand and high prices, but also the mobilization of private markets and attraction of private migration that pulled supplier regions into the economic orbit of the imperial core.[289] Diversified procurement venues and constant influx of migrants from outside of the region were conditions for the extremely high urbanization levels in Guanzhong to be achieved during the Western Han period.[290]

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[287] Yang Wuzhan 楊武站 and Wang Dong 王東, "Xi Han lingyi yingjian xiangguan wenti yanjiu" 西漢陵邑營建問題研究 [A study of problems associated with the construction of mausoleum towns in Western Han], *Wenbo* 6 (2014): 39-43.

[288] See Nylan, "Supplying the Capital with Water and Food," 109-110.

[289] Records of private individuals voluntarily resettling to Guanzhong is scattered across the transmitted histories and was a typical pattern of private geographic mobility in the Qin and Han empires. See, for example, *Shiji*, 101.2737 (Yuan Ang's 袁盎 father), 102.2757 (Feng Tang's 馮唐 ancestors), 103.2763 (Wanshi-jun's 萬石君 father).

[290] Zhou Changshan 周長山 suggested an (implausibly) high percentage of urban population in the Han Empire at 27.7% (for the Western Han period) and 27.5% (for the Eastern Han), see Zhou Changshan, "Han dai de chengguo" 漢代的城墎 [The city walls in the Han period], *Kaogu yu wenwu* 2 (2003): 123. Recent archaeological study of Han urbanization also points at the capital area as the region of exceptionally high concentration of urban populations, see Chen Bo 陳博, *Cong zhongxin dao bianjiang: Han diguo chengshi yu chengshi tixi de kaoguxue yanjiu* 從中心到邊疆──漢帝國城市與城市體系的考古學研究 [*From the center to the periphery: An archaeological study of cities and urban systems in the Han Empire*] (Beijing: Kexue, 2016), 136-139.

Official travels and financial arrangements for officials' mobility in the Qin Empire

Official travels: tasks and purposes

The "activist" territorial states that emerged in continental East Asia in the second half of the first millennium BCE sought to extend their control over the countryside in order to make use of its human and natural resources. The degree to which they succeeded is debatable. Some scholars believe that a comprehensive control was achieved in the Warring States kingdom of Qin, while others argue that neither the Warring States nor the early empires were able to access most of resources within their territorial boundaries, and the government's control spread along the lines of communication and frontier defenses, around the urban administrative centers and the loci of commercially or strategically important productions, such as iron mines and salt works.[291] Reconstruction of the Qin fiscal model in the first chapter of the present study suggests that in course of territorial expansion in the mid- and late Warring States period, the rulers of this state consciously concentrated their extraction efforts outside of the Wei River basin homeland on strategically important areas where the operational costs of the intensive control over resources were offset by a reduction in transportation costs.

That the state control over population and resources was concentrated in specific areas is not the same as saying that no attempts were made to extend the state presence into the hinterland. These attempts took the forms of land surveying, household registration, and mobilization of labor among the populations at the margins of the "state space."[292] The government also deployed across

[291] For the "maximalist" view of the state's control over countryside, see Du Zhengsheng 杜正勝, *Bianhu qimin: chuantong zhengzhi shehui jiegou zhi xingcheng* 編戶齊民：傳統政治社會結構之形成 [*Registering households and counting the people: The formation of traditional socio-political structure*] (Taipei: Lianjing, 1989); Lewis, *Sanctioned Violence*. For a more more conservative view, see Su Weiguo, *Qin Han xiangting zhidu yanjiu*.

[292] The term was coined by James Scott who defines the "state space" as an artificially constructed zone of governance and appropriation, see Scott, *The Art of Not Being Governed*, 40-50.

the countryside the network of facilities for economic exploitation and upkeep of public order outside of the urban centers. These included husbandry farms, mines and iron workshops (*tieguan* 鐵官), guard posts (*ting* 亭), etc. Operation of this infrastructure as well as interaction between various government agencies resulted in regular, routinized travel by the officials across the countryside.

The first travel for many functionaries in the Qin and Han empires was to the place of service. Although the prohibition for the senior officials at the commandery (*jun* 郡) and county (*xian* 縣) levels to serve within their home regions was probably instituted not before the middle of Emperor Wu's 武帝 reign (140–87 BCE), the practice of transferring officials to serve far from their homes was already widespread in the state and empire of Qin.[293] This practice likely took shape in the course of Qin conquests when the administration of newly occupied regions was entrusted to the native Qin officials rather than to the locals whose loyalty was, often correctly, doubted (see discussion of the "new territories" administration in Chapter 3).

Yan Gengwang's 嚴耕望 analysis of the transmitted record on the origins and place of service of local officials confirmed the earlier observation by Qing (1644–1911 CE) scholars that throughout the Han era, senior commandery and county officials were appointed from outside the commandery or county of their service. Other county and district (*xiang* 鄉) functionaries were enlisted from local residents and appointed by their direct superiors rather than by the central government. In most cases, clerks at the commandery courts were residents of the respective

[293] Yan Gengwang 嚴耕望, *Zhongguo difang xingzheng zhidu shi* 中國地方行政制度史 [*History of local administration in China*], vol. 1: *Qin Han difang xingzheng zhidu* 秦漢地方行政制度 [*Local administration in the Qin and Han empires*] (Taipei: Zhongyang yanjiuyuan lishi yuyan yanjiusuo, 1961), 345.

commanderies, while the county clerks resided in respective counties.[294] The recently published Qin "Statutes on the establishment of officials" (*Zhili lü* 置吏律) from the Yuelu Academy collection suggest that the principle of local appointment of county and sub-county administrative personnel was already legally instituted in the Qin Empire.[295]

The vast majority of low-ranked provincial officials were, therefore, serving quite close to their homes, and only the senior ones had to travel to their places of service. However, as already discussed, the administrations of "new territories" were staffed at all levels with the officials transferred from other regions of the empire, although some locals were also allowed to take junior administrative appointments. In other words, most of the Qin imperial territory was subject to the special regime of official appointment that presupposed long-distance transfers to the place of service.

The documents from the Qianling county archive provide a notion of distance some of its petty officials had to travel to the place of service. One record mentions a Qianling county scribe (*lingshi* 令史) whose home was 1,000 *li* (ca. 416 km) away from his place of service.[296] A certain Fan 煩, an assistant (*zuo* 佐) at one of the county offices, had his home in Xunyang 旬陽 County of Hanzhong 漢中 Commandery, some 350 km to the north from his place of service as the crow flies.[297] The household of another county-level official, the Controller of Works (*sikong sefu* 司空

[294] Yan Gengwang, *Qin Han difang xingzheng*, vol. 1, 345-383. Several known exceptions to the principle of non-local appointments of the senior provincial officials date to the beginning of Western Han period.

[295] *Yuelu shuyuan cang Qin jian*, vol. 4, 136-137, slips 207-208.

[296] *Liye Qin jiandu*, vol. 2, 161-162, tablet 9-600.

[297] *Liye Qin jiandu*, vol. 1, 48-51, tablet 8-63. For the location of Xunyang County, see *Zhongguo lishi dituji*, vol. 2, 11-12.

嗇夫) in Linyuan 臨沅 County of the same Dongting Commandery as Qianling, was in Zitong 梓潼 County of Shu 蜀 Commandery (modern Sichuan Province), about 500 km northwest of Dongting.[298] An assistant at the County Treasury (*shaonei* 少內), named Ting 亭, also originated from Sichuan. His home in Bodao 樊道 March of Shu Commandery was about 400 km away from Qianling. In all cases, the actual travel distances should have been much longer.[299]

The Liye documents suggest that the families did not accompany officials to the place of service. Wives were in charge of households in the absence of their husbands. Serving far from home, officials were not able to reunite with their families on a regular basis. Indeed, for those of them serving at the frontier travel home and back to the place of service would have taken many weeks if not months. The early Western Han statute "On the establishment of officials" stipulates that the officials whose home was located more than two thousand *li* (ca. 831 km) from their place of service could return home every other year and were allowed 80 days of absence from their offices.[300] Officials were also allowed to travel home on the occasion of death of parents and some other close relatives (grandparents, uncles and aunts, siblings, and children) for the periods between five and thirty days. Special provision was made for officials whose families were 500 *li* (c. 208 km) or further away from the place of their service, but it is unfortunately only partly preserved in the excavated collection of Qin ordinances.[301]

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[298] *Liye Qin jiandu*, vol. 1, 327, tablet 8-1445. For the location of Zitong County, see *Zhongguo lishi dituji*, vol. 2, 29-30.

[299] *Liye Qin jiandu*, vol. 1, 43-46, tablet 8-60+8-656+8-665+8-748. For the location of Bodao, see *Zhongguo lishi dituji*, vol. 2, 29-30.

[300] *Ernian lüling yu Zouyanshu*, 177, slip 217; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 652-653.

[301] *Yuelu shuyuan cang Qin jian*, vol. 5, 196, slip 295.

Once they reached their place of service, officials found themselves on frequent travels within and sometimes beyond their areas of jurisdiction. Maintenance of public order implied arresting criminals, suppressing bandits, rebels, and other organized illegal groups. Other tasks were also often taking local functionaries afield.

Although a specialized law enforcement existed in the Qin and Han empires, dealing with criminals was the mission of all government personnel. The early Former Han "Statutes on arrest" (*Bu lü* 捕律) required all county officials to participate in the pursuit of bandits and to engage them in battle if necessary.[302] In the legal case record from 220 BCE, for example, the government force dispatched to fight a rebel group in one of the counties in the southern commandery of Cangwu was led by the senior clerk (*lingshi* 令史) of the county.[303] In 201 BCE, another county clerk in Huaiyang 淮陽 Commandery was sent on a mission to "take measures against robbers and criminals" (*bei daozei* 備盜賊).[304]

Apart from the risky business of reestablishing public order, local officials were often traveling on more peaceful missions associated with the administration of justice. Texts excavated from the Qin burial at Shuihudi demonstrate that county clerks were dispatched to investigate legal cases, which required them to travel to remote villages within their counties.[305] A document from

[302] *Ernian lüling yu Zouyanshu*, 148-149, slips 140-143; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 560-563. For the Qin ordinance prescribing punishments for officials and servicemen who failed to pursue and capture criminals, see *Yuelu shuyuan cang Qin jian*, vol. 5, 194, slips 288-289.

[303] *Ernian lüling yu Zouyanshu*, 363-370, slips 124-161; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 1332-1358.

[304] *Ernian lüling yu Zouyanshu*, 354, slips 75-76; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 1290-1291.

[305] See, for example, three cases from the Shuihudi collection of model records of legal cases, *Shuihudi*, 158-162, slips 63-90; Hulsewé, *Remnants*, 200-206.

Liye mentions a legal investigation that brought three functionaries of Lingyang 零陽 County to the neighboring Qianling County.[306]

Commandery clerks (or accessory scribes, *zushi* 卒史) from time to time had to conduct criminal investigations in neighboring commanderies.[307] Such travels could take them several hundred kilometers away from their offices and last for many months. One investigation by certain clerk Shuo 朔 from Nan Commandery lasted for 449 days, during which he travelled some 5,146 *li* (ca. 2,140 km) by land and water.[308]

Inspection tours of subordinate territories was yet another task that involved travelling. Such tours were instrumental in monitoring the performance of local administrations. A record from the Zhangjiashan collection of doubtful legal cases, dated 200 BCE, mentions two such tours: one by the governor of Huaiyang Commandery who was inspecting the counties under his jurisdiction, and another one by a magistrate who toured his county to make sure that sacrifices were properly staged to secure rain during the crop growing season.[309]

Inspections of various official facilities were a routine task for county and commandery clerks in charge of preparing annual accounts for the central government.[310] An event calendar

[306] *Liye Qin jiandu*, vol. 1, 1-7, tablet 5-1.

[307] For the legal regulation requiring commandery officials to investigate important criminal cases in neighboring commanderies, see *Ernian lüling yu Zouyanshu*, 139, slips 116-117; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 510-511. For travel arrangements for commandery and central government officials involved in legal investigations, see *Yuelu shuyuan cang Qin jian*, vol. 5, 184, slips 261-262.

[308] *Ernian lüling yu Zouyanshu*, 364, slips 127-128; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 1336-1339.

[309] *Ernian lüling yu Zouyanshu*, 354, slips 75-76, 82-83; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 1290-1295.

[310] For the system of official accounting (*shang ji* 上計) in the Qin and Han empires, see, for example, Yan Gengwang, *Qin Han difang xingzheng*, 257-268.

from Zhoujiatai (213 BCE), for example, records its owner, a county clerk, managing (*zhi* 治) an "office of iron" (*tieguan* 鐵官, government agency in charge of manufacturing iron tools).[311]

Management of the unfree labor force was one of the key functions of local governments in the early Chinese empires (see Chapter 4). Local officials often had to escort groups of conscripts and convicts to the locations of labor projects. While still serving as the chief of a guard post (*ting*), the would-be founder of the Han Empire, Liu Bang, was ordered to escort a group of convicts to Lishan 酈山 where the First Emperor's mausoleum was under construction. After many convicts absconded on the way, Liu preferred not to return to his office and joined the absconders to eventually become leader of an anti-Qin rebel force.[312] When a convict gang was crossing a county, its officials also had to provide an escort until this responsibility was taken over by the officials of the next county.[313]

Finally, a variety of routine tasks such as the delivery of documents such as the annual accounts, and shipment of goods and materials frequently required local officials to set out on a journey. A document from the Qianling archive, dated April 18th, 220 BCE, and issued by the supervisor of the county's Armory (*ku* 庫), required the Qianling Controller of Works to direct his subordinate functionaries to assist in the shipment of armaments.[314] A number of "Registers of

[311] *Guanju Qin Han mu jiandu*, 94, slips 16-30.

[312] *Shiji*, 8.347.

[313] *Shuihudi*, 155-156, slips 46-49; Hulsewé, *Remnants*, 195-196; *Yuelu shuyuan cang Qin jian*, vol. 4, 145-146, slips 232-236.

[314] *Liye Qin jiandu*, vol. 1, 341, tablet 8-1510.

convict laborers" from Liye record convicts involved in the delivery of accounting reports along with officials (*yu li shang ji* 與吏上計).[315]

Official travels: financial arrangements

On the 8th of May, 212 BCE, the Supervisor of Granaries (*cang sefu* 倉嗇夫) of Qianling County, Xian 銜, issued the following document[316]:

卅五年三月庚寅朔辛亥，倉銜敢言之：疏書吏、徒上事尉府者牘北（背），食皆盡三月，遷陵田能自食。謁告過所縣，以縣鄉次續食如律。雨留不能投宿齎。當騰騰。來復傳。敢言之。（正）

令佐温。
更戍士五城父陽翟執。
更戍士五城父西中痤。
胥手。（背）

Front side
Thirty-fifth year [of King Zheng, i.e., the First Emperor], in the third month, *geng-yin* being the first day of the month, on the day *xin-hai* (May 8, 212 BCE), Xian, [the Supervisor of] Granaries, dares to report the following. The official and servicemen listed on the back of this tablet are serving at the office of [County] Commandant. They have received their food [rations] for the third month in full. [While in] Qianling County, they can feed themselves at the [Office of] Fields. I request to report the [names of] counties they are going to pass on their route, so that they are [issued] food [rations] by the counties and cantons as they pass them in [prearranged] sequence, according to the statutes. If there are delayed by rainy [weather] and are unable to reach their [next] accommodation, keep supplying [them with rations]. [This] should be copied [whenever

[315] See, for example, *Liye Qin jiandu*, vol. 1, 84-89, tablet 8-145.

[316] *Liye Qin jiandu*, vol. 1, 344-345, tablet 8-1517.

it is necessary to take] copy.[317] [This is the] passport for travel for two ways. Dare to convey this.

Back side
Wen, Assistant to the [County] Magistrate
Zhi, conscripted soldier, commoner [rank], [from] Chengfu County[318], Yangzhai [village]
Zuo, conscripted soldier, commoner [rank], [from] Chengfu County, Xizhong [village]
Drafted by <scribe's name>

This and similar texts excavated in Liye are the earliest known samples of "travel certificates" (*chuan* 傳).[319] The one translated above was issued by the Supervisor of Granaries who was in charge of issuing monthly food rations to officials, servicemen, and other personnel engaged in service with the local government, as well as corvée laborers and convicts.[320] The document specifies the identity of the official and two servicemen travelling outside the county and requires all counties on their route to supply them grain rations in accordance with legal regulations (see below). In case of unexpected delays caused by heavy rainfall, travelling officials and their subordinates were entitled to additional rations. Qianling's failure to provide rations to

[317] Our translation of the formulaic phrase *dang teng teng* 當騰騰 follows interpretation put forward in Hu Pingsheng, "Du Liye Qin jian zhaji" 讀里耶秦簡札記 [Reading notes on the Qin documents from Liye], *Jianduxue yanjiu* 簡牘學研究 4 (2004): 7-20, esp. 9.

[318] Chengfu 城父 County was located to the north of Huai River 淮水, in the north-western corner of modern Anhui Province, on the border with Henan Province. In the Qin times, it belonged to Sishui 泗水 (also called Sichuan 泗川 or 四川) Commandery, see *Zhongguo lishi dituji*, vol. 2, 7-8. The two servicemen travelled some 1,000 km to their place of service.

[319] For other specimens, see *Liye Qin jiandu*, vol. 1, 1-7, 40-41, 102-103, tablets 5-1, 8-50+8-422, 8-169+8-233+8-407+8-416+8-1185.

[320] The duties of this office are outlined in the fragments of the Qin "Statute on Granaries" (*cang lü* 倉律) from Shuihudi and the Yuelu Academy collection, see *Shuihudi*, 25-35, slips 21-63; Hulsewé, *Remnants*, 30-46; *Yuelu shuyuan cang Qin jian*, vol. 4, 122-123, slips 163-166.

the holders of travel certificates from Danyang 丹陽 County (in the present-day Anhui Province) entailed inquiries on the side of the latter's authorities who insisted on the issuing of food.[321]

Regulation of travel time was an essential part of the travel certificates. In the above-translated example, officials in other counties were put on notice that no grain was to be issued to the travelling Qianling personnel until the beginning of the next, fourth month – rations for the third month had already been issued in full. On the other hand, should they linger in Qianling into the fourth month, they were to be supplied by the Office of Fields (*tianguan* 田官) of Qianling County, which operated some grain-storing facilities outside the county town and was in charge of issuing rations to the state functionaries deployed in the countryside.[322] Finally, the document requests the county officials (probably the commandant or deputy magistrate) to provide an accurate travel itinerary (*guosuoxian* 過所縣).[323] As we will see shortly, together with the travel certificates, these itineraries validated financial arrangements for official traveler.

Although the Liye archive for the first time provided the Qin-era specimens of travel certificates, the system itself has long been known from both Qin and Western Han legal texts. The "Statute on Granaries" from Shuihudi orders that the personnel "on an official mission where they receive food on (the strength of) their passport… will have their rations stopped at the next

[321] *Liye Qin jiandu*, vol. 2, 127-128, tablet 9-452.

[322] One Liye document mentions the "Register of those feeding themselves from the official fields" 官田自食簿 drafted by the provisional supervisor of the Office of Fields, see *Liye Qin jiandu*, vol. 1, 199, tablet 8-672. Many of the grain ration receipts, which constitute one of the largest categories of Qianling archival documents, record the issue of rations to garrison soldiers, debtor laborers, and convicts by the Office of Fields.

[323] On the *guosuoxian* 過所縣 itineraries, see Fujita Katsuhisa, "Liye Qin jian de jiaotong ziliao yu xian shehui" 里耶秦簡的交通資料與縣社會 [Materials concerning transportation among the Qin documents from Liye and the county society], in *Jianbo* 10 (2014): 155-175.

new moon and will be given food rations as from the day of their return."[324] This is exactly the arrangement outlined in the Liye document: the rations for the third month were issued, and further supply was stopped until the return of the officials back to Qianling County.

The Qin "Statutes on food rations for holders of travel certificates" (*Chuanshi lü* 傳食律) relates food rations to the ranks (*jue* 爵) and official posts of the receivers.[325] The size of rations is summarized in the following table.[326]

Table 5.6: Food rations for the holders of travel certificates in the Qin and early Western Han statutes

Rank or office of passport holder	Daily ration
Envoys of Chief Prosecutor 御史 and senior (2,000-bushel) officials 卒人[327]	One *dou* (ca. 2 liters) of refined grain, ½ *sheng* (ca. 100 ml) of fermented sauce, leeks and onions for soup[328]
From 4th *bugeng* 不更 to 3rd *mouren* 謀人, eunuchs	One *dou* of refined grain, ½ *sheng* of fermented sauce, vegetable soup

[324] *Shuihudi*, 31, slip 46; translation follows Hulsewé, *Remnants*, 44.

[325] The Shuihudi statute prescribes that "those who possess a rank, from the fifth rank and above are fed according to their rank," see *Shuihudi*, 60, slip 179; translation follows Hulsewé, *Remnants*, 83-84, with some modifications.

[326] *Shuihudi*, 60, slips 180-182; Hulsewé, *Remnants*, 83-85.

[327] The term *zuren* 卒人 in this legal article perplexed scholars until the publication of the Liye documents, in one of which *zuren* is used as reference to commandery governors, see *Liye Qin jiandu*, vol. 1, 46-47, tablet 8-61+8-293+8-2012. On the basis of this and other evidence as well as the comparison between the Qin and Han "Statutes on food rations for holders of travel certificates" from Shuihudi and Zhangjiashan, respectively, scholars concluded that *zushi* indicated senior officials of 2,000-bushel salary grade, see *Qin jiandu heji*, vol. 1, 131-132, n. 1.

[328] I am following the editors of *Shuihudi* in understanding the numbers in this legal article as referring to each of two daily meals (*shi* 食) rather than to the total amount of food issued per day, see *Shuihudi*, 60, slip 180, translation into modern Chinese. This interpretation is also adopted in Lee Kim, "Food Redistribution during China's Qin and Han Periods," chapter 1.

Below 2nd *shangzao* 上造, office assistants (*guanzuo* 官佐), clerks (*shi* 史), diviners (*bu* 卜), chief-coachmen (*siyu* 司御), attendants (*si* 寺/侍), storehouse keepers (*fu* 府)	One *dou* of husked grain, vegetable soup, 1/11 *sheng* (ca. 18 ml) of salt

Incomplete and fragmentary as it is, this data gives a notion of the official traveler's diet. Simple and monotonous, it provided sufficient nutrition in most of cases, but hardly much beyond that. A rough calculation shows that the Qin lawgivers had a relatively accurate notion of how much food one needs to stay alive and active and were eager to provide their men just that much.[329] Since most of the travels were likely associated with higher energy expense, they might have presented some physiological stress.[330] The same applied to travel companions. According to the early Western Han statute, the number of the latter was defined by the salary grade of an official or social rank of an envoy who had no official position, with the highest salary grade or rank

[329] It has been calculated that 100 ml of cooked millet contains 119 calories, see http://www.nutritionvalue.org/Millet%2C_cooked_nutritional_value.html, accessed June 4, 2018. One *dou* (ca. 2 liters), therefore, should be worth about 2,380 calories, while the energy consumption of an adult individual per day is estimated at over 2,000 calories, see https://www.freedieting.com/calorie-calculator, accessed June 4, 2018. The diet of a travelling official was further augmented by vegetable soup (*cai geng* 菜羹) and protein-containing fermented sauce (*jiang* 醬). For the discussion of the latter see Wang Zijin, *Qin Han shehui shi lunkao* 秦漢社會史論考 [*Issues in Qin and Han social history*] (Beijing: Shangwu yishuguan, 2006), 283-291.

[330] Writing in the mid-1970's, Donald Engels observed that his sources in the U.S. Army Quartermaster Corps informed that "the caloric content of an army ration needed to sustain a soldier in combat conditions is 3,600 per day," the number he is further using to assess the size of food rations in Alexander's Macedonian army, see Engels, *Alexander the Great and the Logistics of the Macedonian Army* (Berkeley, Los Angeles, and London: University of California Press, 1978), 123. This is considerably higher than the estimated caloric value of the passport-holder rations in the Qin and Han legal documents, even after additional sources of calories (fermented sauce, vegetable soup) are taken into consideration. Engels adds that "in addition to calories, at least 70 grams of protein per day are needed if one is to avoid malnutrition and starvation" (op. cit.). In case of the Qin and Han travelers, fermented soy sauce should have served as the primary source of protein.

holders entitled to as many as ten attendants and the lowest ones to just one.[331] The same probably was the case in Qin.[332] According to both the Qin and Han legal norms, these attendants were entitled to the same basic rations of one or 5/6 *dou* per day in two meals, issued in grain of lower quality than appropriate for primary travelers (husked, *li* 糲, rather than refined, *bai* 粺).[333] The Qin law additionally prescribed that servants received a smaller ration of 1/3 *dou* (ca. 667 ml) for each of the two daily meals.[334]

The application of these norms remains debated, as reflected in the alternative renderings of the statute title as either "On food rations for holders of passports" (*chuan*, which I translate as "travel certificates"), by A.F.P. Hulsewé, or "On food rations at conveyance stations," by Anthony Barbieri-Low and Robin D.S. Yates.[335] Conveyance stations (*zhuan* 傳) were accommodation and provisioning facilities located within the county towns (as discussed above). The same graph, however, was also used to indicate travel certificates of a sort issued to the three travelling functionaries of Qianling County. The latter appear to have been moving on foot, while conveyances stations, among other conveniences, were providing their guests fresh mounts, implying travelers were arriving on horseback or in wheeled vehicles.[336] It should also be noticed

[331] *Ernian lüling yu Zouyanshu*, 184, slips 235-237; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 684-685.

[332] Qin ordinances from the Yuelu Academy collection mention specific types of travel attendants accompanying high-ranked officials on their travels, such as runners (*zou* 走), servants (*pu* 僕), coachmen (*siyu* 司御), and cooks (*yang* 養). See *Yuelu shuyuan cang Qin jian*, vol. 5, 183, slips 257-259; 195-196, slips 293-294.

[333] *Shuihudi*, 60, slips 179-180; Hulsewé, *Remnants*, 83-84; *Ernian lüling yu Zouyanshu*, 184, slip 233; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 682-683.

[334] *Shuihudi*, 60, slips 179-180; Hulsewé, *Remnants*, 83-84.

[335] Hulsewé, *Remnants*, 83-85; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 678-691. For the later interpretation, see also *Shuihudi*, 60, slips 179-180, comm. 1.

[336] Wang Zijin, *Zhongguo jiaotong shi gao*, 455-466; Barbieri-Low and Yates, *Law, state, and society*, vol. 2, 678-679.

that the Qin statute does not contain any references to horse provisioning. In may therefore be suggested that, at least under the Qin, the statute established rations for passport-holding travelers regardless of their means of transportation and accommodation type.

Another document from Qianling illustrates the procedure for ratifying the disbursement of grain rations. Three officials from Lingyang 零陽 County arrived in Qianling in 209 BCE to conduct a criminal investigation. Their visit was accompanied by extensive paperwork that ended up being copied onto a wooden tablet stored in the county archive. This "file" includes the copy of travel certificate for the three incoming officials issued at Lingyang along with the record of the Qianling authorities' instruction that the county Granary start issuing rations.[337] The following table summarizes the procedure.

Table 5.7: Procedure for the disbursement of food rations

Date (209 BCE)	Summary of events
August 16	Travel certificate is issued by Lingyang County for its three travelling officials.
August 17	Lingyang Magistrate dispatches the itinerary for this travel.
September 1, morning	Documents are delivered to Qianling. It is unclear whether these included both itinerary and travel certificate or only itinerary. In the latter case, travel certificate had to be presented by travelling officials.
September 1	The Provisional Deputy Magistrate of Qianling orders Qianling granary to issue rations to the three Lingyang officials, probably starting on this

[337] *Liye Qin jiandu*, vol. 1, 1-7, tablet 5-1. Lingyang County belonged to the same Dongting Commandery as Qianling, see Yan Changgui, "Liye Qin jiandu junxian zhi," 172-173. For the geographic location of Lingyang County in the Han period, which more or less coincided with its location under the Qin, see *Zhongguo lishi dituji*, vol. 2, 22-23.

	day. Even though they may have arrived in Qianling earlier, up to this date they were surviving on rations collected from the Lingyang granary prior to their departure.
September 7	On this day, the issue of grain rations by Qianling County to the three Lingyang officials is stopped as they are supposed to proceed to their next destination as per their itinerary.

Table 5.7 demonstrates how the budget of an official travel was prepared and implemented. By issuing the travel certificate, Lingyang County authorized its functionaries to receive grain rations at Qianling as well as in other administrative units along the route of their travel.[338] The passport specified that the officials have already collected their rations at Lingyang for the period till September 1, 209 BCE. No matter how early they arrived, only starting from this date would they be entitled to receiving rations from Qianling granary. Indeed, the Qianling authorities instructed their Granary to start issuing rations to the Lingyang guests on September 1. It continued to do so for a week until September 7 (the last day of the seventh month of the first year of Second Emperor), which was when the itinerary prescribed the three officials to leave Qianling. Another document from the Qianling archive records an issue of 1 *shi* 4½ *dou* (ca. 29 liters) of grain to a visiting official from Yuanling 沅陵 County of Dongting Commandery.[339] The duration of his stay

[338] A fragmentary document from the Qianling archive suggests that the way from Lingyang to Qianling passed through Chong 充 County located up the Li 澧 River from Lingyang, see *Liye Qin jiandu*, vol. 1, 467, tablet 8-2430. Scholars suggested that in order to reach Qianling, Lingyang visitors had to first travel up the Li River and then to proceed overland toward the You River basin where Qianling was situated, see Yan Changgui, "Liye Qin jiandu junxian zhi," 173.

[339] *Liye Qin jiandu*, vol. 2, 149-150, tablet 9-528+9-1129.

at Qianling is not recorded on the extant fragment of a wooden tablet, but this information was almost certainly a part of the original document.

Measures were taken to prevent the wastage of food supplies in case the size of travelling party reduced along the way. A Qin ordinance from the Yuelu Academy collection instructs officials to notify county courts of any such changes:[340]

> 令曰：諸以傳食稟貣（貸）者，人馬牛羊有死亡厮及別者，將吏輒自言縣官，縣官以實署當稟者數于傳，其
>
> The ordinance states: For all those receiving or being lent food rations on the strength of passports, whenever a person, a horse, an ox, or a sheep dies, absconds, leaves, or otherwise [disappears], leading officials [of a traveling party] should immediately personally report to the county court, and the county court should inscribe the actual number of ration recipients into their travel certificate…

The county court mentioned in the ordinance was most likely the court of the county where the traveling party experienced the loss of its member(s) and where (as well as everywhere else for the remainder of their travel) their food allowance was reduced accordingly. Insofar as the list of traveling individuals and their animals was inscribed on the back of the travel certificate, corrections could easily be made by erasing the names of people or making changes to the number of animals on such lists.

This analysis offers some background for understanding the event calendars with their meticulous records concerning routes and durations of travel outside one's county of service. One of the reasons for tracking such moves in writing was to have a reliable, independent record in case of possible mistakes in the official files. A recently published Qin ordinance from the Yuelu

[340] *Yuelu shuyuan cang Qin jian*, vol. 5, 194, slip 290.

Academy collection prescribed officials to keep daily register (*bu* 簿) during their travels outside of county offices, which had to be submitted at the county court on the first day of each month.[341] Such registers were most likely prepared on the basis of event calendars.

We can also offer an explanation for the seeming contradiction in the Zhoujiatai calendar that records its owner lodging (*su* 宿) in Jiangling on April 1, 213 BCE, while the record of his arrival (*dao* 到) to Jingling is dated April 2.[342] Although this official had already arrived on April 1, he only started receiving rations in Jiangling the next day, which would be the date of his formal "arrival" for the purpose of financial accounting.

One final observation concerns the prevalence of "staple finance" in the extant record of the official travels in the Qin Empire. Traveling government personnel received in-kind rations rather than being issued travel money. Such arrangement was in line with the financial model of the Warring States Qin that emphasized direct redistribution of resources by the state (see Chapter 2). It is also in striking contrast with the situation at the end of the Western Han period when an official was routinely reimbursed his travel expenses in cash.[343] Such a scheme should have added some flexibility to the travel patterns as officials were no longer constrained by the need to collect their rations at certain locations on specified dates. By the same token, it reduced the government's ability to control the physical mobility of its personnel.

Travelling officials were the best-recorded part of the "state on the move," and our understanding of the important elements of the official organization of physical mobility in Qin is owed to the surviving written texts concerning their travels: legal statutes, travel certificates, ration

[341] *Yuelu shuyuan cang Qin jian*, vol. 5, 181-182, slips 253-254.

[342] *Guanju Qin Han mu jiandu*, 94-95, slips 33-34.

[343] *Yinwan Han mu jiandu*, 138-144.

disbursement records, itineraries, etc. Along with the material and intellectual infrastructure of mobility, these arrangements enabled connectivity between the regions of the empire. Much less is known about the state-organized relocations of other groups, particularly convict criminals, labor and military levies, and resettlers who amounted to the vast majority of individuals induced or forced to move from one place to another under the Qin Empire.

4. Conclusion: a fragile connectivity

Terms such as "tyranny of distance" and "friction of terrain" have been used to describe the difficulty of transporting bulk goods, particularly grain, under premodern conditions. As one author has it, inefficient transportation "set up sharp, relatively inflexible limits to the effective reach of the traditional agrarian state."[344] Insofar as such states relied on grain revenues for maintaining their armies, administrative personnel, and royal courts, ability to concentrate manpower for the purpose of agricultural production and military mobilization at the state's core was key to the state power. It has recently been argued that early imperial China, too, was characterized by "tight spatial circumscription," with its physiographic regions relatively isolated from each other. All its cities, including the capital, had to be provisioned by their immediate hinterland, while the imperial state "focused its efforts to improve irrigation and transport entirely on the capital region."[345]

While the small and fragile "mandala states" described by James Scott and others may have been typical for many premodern complex societies, generalizing from this ubiquitous yet specific

[344] Scott, *The Art of Not Being Governed*, 43.

[345] Lewis, "Early Imperial China," 283.

instantiation of stateship can be misleading.[346] Other scholars analyzed structural conditions for the emergence of territorial empires characterized by extensive if uneven distribution of state presence across the vast bodies of land. These include high levels of productivity in the underlying economy that generated considerable surplus to afford a respectively high level of expenditure for control infrastructure; monetary economy that facilitated spatial extension of surplus acquisition (in Scott's terminology, "state-accessible products") and reduced the costs of transferring extracted value over distance; and logistical infrastructure, originally developed for military purposes but eventually serving economic integration, often induced by military provisioning.[347]

Infrastructures of physical mobility take the pride of place in Mann's analysis. The students of imperial state formations in the Mediterranean and elsewhere paid attention to the impact of road systems and other means of connectivity in premodern empires. Some scholars consider extensive road systems characteristic of the territorial strategy of imperial rule aimed at direct administration and fiscal exploitation of the conquered regions as opposed to the hegemonic (or tributary) model.[348] Others emphasized the impact of state-sponsored mobility infrastructure on the change in consumption habits, development of "global knowledge", and effectively the "early and sustained globalization" in the ancient empires.[349]

As many other imperial states, early Chinese empires were "states on the move" in the sense that their activities and relationship to constituent elements – territory and population – were

[346] Scott's analysis of traditional agrarian states is embedded in the rather specific conditions of Southeast Asia where the majority of pre-modern state formations consisted of an urban center surrounded by agricultural hinterland and circumscribed by highlands. For the early history of such states, see, for example, Nam Kim, *The Origins of Ancient Vietnam* (Oxford: Oxford University Press, 2015).

[347] Mann, *The Sources of Social Power*, vol. 1, 279-280.

[348] See, for example, D'Altroy, *Provincial Power*, 95-127; D'Altroy, "Empires Reconsidered," 98.

[349] See, for example, Hitchner, "Roads, Integration, Connectivity, and Economic Performance," 230-232.

shaped by the organization and management of human and resource mobility. The state territory was defined by the scope of the communication and transportation web, along which the infrastructures of monitoring and extraction were deployed. As its nodes, this web integrated urban centers with their administrative seats, markets, artisans, and military garrisons; post relay stations; agricultural colonies, ore mines, metal foundries, lumber mills, saltworks, and other facilities that signified the state presence across the hinterland. Resources and populations not easily accessible by the existing routes were also those least known or least relevant in the political economy of the empires.

The authorities of the Qin county of Qianling were well-informed about the residents of regular settlements (*li* 里), which were often organized by the state at or near the sites of local administration, and of the numbers and output of convict gangs employed at the state-managed production facilities. All these sites were connected by communication routes, the use of which was facilitated by maps and itineraries and along which materials and people could be transferred between the pockets of state presence. Populations outside this connectivity web were at best vaguely known to the local functionaries, as reflected by their episodic appearance in administrative documents.

It is due to one such isolated mentions that we learn of 106 households in Qianling County that included 1040 adult males. Extraordinary large size of these "households" suggests they may have represented some local tribal groups organized in lineages rather than the Qin-style nuclear households. In terms of its size, this single group may well have exceeded the entire registered population of Qianling.[350] Lack of any further information in the published Liye documents

[350] For an analysis of the fragmentary document from Liye that mentions this unusual group of households, see Tang Junfeng, "Liye Qin jian suo shi Qin dai de "jian hu" he "ji hu". For the registered population of Qianling County, see Chapter 1.

suggests that, in spite of their relatively large numbers, these people were marginal to the Qin system of revenue and labor extraction in the area. This was likely due to the government's inability to access indigenous populations across the rough terrain of mountainous western Hunan – the "friction of terrain" effect – but also to the Qin's preoccupation with intensive exploitation of state-engineered agricultural enclaves rather than negotiating with the local societies surrounding them. The same applied elsewhere in the Yangzi basin and, more generally, in the southern part of the Chinese empire where the local topography and environment as well as socio-economic and cultural conditions prevented the imperial administrators from efficiently accessing and exploiting hinterland populations and resources until well into the late imperial and even modern periods.[351]

Recognition of the intrinsic limitations on geographic connectivity should not automatically lead to a conclusion about the regional isolation in the early Chinese empires. In the south, in particular, difficulties of overland communication that hindered state penetration into the hinterland were counterbalanced by the possibilities of relatively cheap interregional riverine transportation. The Qianling county town on the bank of the You River was better connected to relatively distant locations along the greater Yangzi River system, such as the Qin stronghold in the South, the Nan Commandery, and the Sichuan basin further upstream, than to its own hinterland. Itineraries were available to guide an official traveler to Qianling all the way from the Great Plain to the north of the Yellow River over the distance of some thousand kilometers as the crow flies, but the officials travelling from one district to another within the county had to count

[351] For the central government's lack of knowledge and control over many local settlements, see Lu Xiqi, "Han Song jian Changjiang zhongyou diqu de xiangcun juluo," 128-151. For the borderland politics of the late imperial Chinese state in the mountainous regions to the south of the Yangzi, see Shin, *The Making of the Chinese State*. On the strategies adopted by local communities of upland Southeast Asia to resist the attempts of centralized states to establish regular administration and taxation, see Scott, *The Art of Not Being Governed*.

on much less reliable instructions by their colleagues in the absence of formal, state-authorized itineraries.

The available Qin maps and distance lists suggest that riverine shipment was the preferred mode of transportation, and overland roads were constructed and used primarily to connect river basins, also in the areas where no navigable rivers were available.[352] Much of the state investment in transportation infrastructure was concentrated in the northern part of the empire where rivers were fewer, and riverine transportation less efficient than in the South. The best roads such as the imperial highways were reserved for urgent official communication par excellence. These and other roads with advanced surface engineering were also used for transferring labor force and probably also for the shipment of tax grain. Newly unearthed documents suggest that state-organized grain transportation had greater geographical scale than previously assumed, in particular, a route connecting the Middle Yangzi and the imperial metropolitan centers in the north was already opened by the imperial Qin times, some 800 years before the construction of the Grand Canal. It was instrumental in reorienting grain supplies previously destined for the Chu capital that was captured by the Qin armies in early 270-s BCE. This route followed the course of the Han River and entered the Yellow River basin near Luoyang after a relatively short overland section.

Combined with the evidence on the large-scale, state-sponsored dike building program in the Jianghan region under the Western Han, these documents point at the need to revise not only the economic role of the Middle Yangzi region in the early empires but also our ideas about the scale and efficiency of interregional economic connectivity. While the unavailability of maritime transportation between the key economic regions of the Qin and Han empires as opposed to the

[352] Under the pre-modern transportation conditions, imperial expansion often unfolded along the navigable water routes, as was the case with the Qin's conquest of the Yangzi basin. See Scott, *The Art of Not Being Governed*, 45.

Mediterranean empire of Rome goes long way in explaining the difference in the fiscal organization of the two states as well as in the degree of commercialization and monetization of their economies,[353] river systems enhanced by hydraulic improvements and augmented by overland roads between drainage basins allowed sufficient interregional connectivity to make possible vast increases in food imports to the regions earmarked for state-sponsored urbanization.

Long-distance transfers of people in state-organized resettlements were practiced long before the imperial unification but escalated under the First Emperor. The wealthy elites who were targeted for such projects under the Qin and Han were bringing liquid wealth to the metropolitan region in the Wei River basin. This was augmented by the official distributions of cash to resettlers that became a common practice under the Western Han. Insofar as the newcomers were primarily settled in cities, their wealth boosted demand for food, materials, and manufactures as well as for hired labor, effectively contributing to economic integration on a more sustainable basis than politically determined tribute transfers from province to the center. Market-oriented financial policies of the imperial government such as the purchases of grain in regions where it was cheap for subsequent resale at higher price elsewhere were made possible due to the presence of pockets of monetization and high demand for food, of which the metropolitan region was the major but not the only one. Already under the Qin, the military frontier such as Qianling County appears to have

[353] For a comparative study of the fiscal systems of the Han and Roman empires that highlights the importance of efficient maritime transportation for long-distance transfers of revenues, see Scheidel, "State Revenue and Expenditure," 150-180. For the higher degree of monetization and commercialization of the Roman imperial economy compared to that of the Han Empire, see Scheidel, "The Monetary Systems of the Han and Roman Empires," in Scheidel, ed. *Rome and China*, 137-207.

had more access to monetary liquidity than the inner regions of the empire (see Chapter 6). This pattern endured into the later periods.[354]

While grain and manpower were the key resources of the agrarian state, what travelled the longest distances were the goods that possessed high values per unit weight and volume. These were often "exotica" from the distant, highland periphery, which are well-represented in the lists of tribute goods submitted by Qianling County: bird feathers, rare wood, fruit, medical herbs, and so on. Other southern exotica are listed, sometimes in considerable detail, in transmitted texts that talk about Qin's southward expansion. Some of these goods circulated in the extremely long-distance exchange networks that expanded well beyond the reaches of any of the ancient empires. However, as already suggested in Chapter 3, this is not to say that the empires did not do their best to explore these routes and to appropriate them to the greatest possible extent. By doing so, they refocused the exchange circuits on the imperial centers and created ever more extensive spaces of economic as well as political connectivity.[355]

The imperial "conquest of distances" was fragile and conditional. Collapse and disintegration of central government curtailed interregional communications. The Qin material culture virtually disappeared to the south of the Yangzi after the fall of the empire, attesting to the retreat or destruction of northern settlers. The demise of the imperial capital Xianyang at the hands of the rebel armies in 207 BCE reduced the center of urban demand in the Wei basin, and political fragmentation at the beginning of the Western Han era resulted in severe restrictions on the

[354] For the large transfers of coin and cloth currency to the northwestern frontier garrisons under the Han and in the medieval period, see Wang, *Money on the Silk Road*, 47-56; Wang, "Official Salaries and Local Wages at Juyan," 67-68; Hansen, *The Silk Road: A New History*, 184-185.

[355] This dynamic is exemplified by the tributary system that developed under the early Chinese empires and endured until the end of imperial rule. Under this system, the geographical shape of the political space centered on the emperor's court was defined by the extent of network within which tribute and imperial gifts were circulated.

mobility of goods and people between the western regions of the empire that remained under direct control of the court and the eastern and southeastern territories where semi-autonomous princedoms were established, which the central government treated with suspicion if not overt hostility.[356]

Yet, the surviving physical and intellectual infrastructures of geographic mobility were instrumental in the territorial reconstruction of the empire and in the rebuilding of its administrative capacity in the areas that had once been incorporated into the centralized state, if only for a short period of time. The Han expansion to the south of the Yangzi in the second half of the second century BCE proceeded along the familiar routes of Qin control. The county town at Liye, burned to ashes during the fall of Qin, was rebuilt under the Western Han, and the presence of Han material culture at the adjacent cemeteries attests to the new round of colonization in the area. Moreover, the Han settlement in the You River basin seems to have expanded compared to the Qin period, with a new walled town founded in the Liye area.[357] By the same token, Chinese presence in the regions to the west of the Great Loop of the Yellow River for two millennia expanded and contracted along the lines of military control, agricultural colonization, and commercial exchange laid out by the Western Han armies, officials, and merchants who explored and mapped communication routes in the region.[358]

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[356] On the butchering of Xianyang residents and the burning of the Qin palaces by the troops of Xiang Yu 項羽, see *Shiji*, 7.315. On the political relations between the central government and regional princedoms in the beginning of the Western Han period, see Chen Suzhen 陳蘇振, "Hanchu wangguo zhidu kaoshu" 漢初王國制度考述 [A study of the regional kingdoms system in the beginning of Han], *Zhongguo shi yanjiu* 3 (2004): 27-40.

[357] On the rebuilding of the fortified town at Liye during the Western Han period, the Han-era cemeteries in the area, and a walled town at Weijiazhai 魏家寨 built during the Western and Eastern Han period, see *Liye fajue baogao*, 238-239, 374-664.

[358] Although no maps have so far been excavated among the Han written materials from the northwestern frontier, some sites in the area yielded distance lists of the same kind as those excavated in Liye, suggesting travel routes were officially outlined, and travel time and distances measured. See, for example, Hu Pingsheng 胡平生, Zhang Defang

Emergence of a shared sphere of geographic mobility had important repercussions not only for political and economic dynamics but also for the formation of an "imperial society" – the groups of people spatially distributed across the empire, sharing important elements of material culture (such as food consumption) and beliefs (e.g. reflected in funerary behavior), and resorting in their everyday lives to imperial institutions and practices such as coinage, legal system, literacy, etc. The historians of early China are only beginning to explore this process on the basis of newly available materials.[359] Insofar as most of these developments were long-term and unfolded in course of the 400-year-long Han era, they fall outside the timeframe of this study, and I am going to mention just three examples that shed light on the longer-term trajectories of some processes discussed in this chapter.

One of the essential mechanisms for the spread of literacy during the early imperial period was regular conscription of soldiers for the service at the northwestern frontier, many of whom were recruited in the interior regions of the empire. At least some of them mastered basic literacy in course of their stay at the frontier garrisons, so that they were able to understand basic official documents such as the passports used by individuals passing through the border posts, and instructions concerning the fire signaling system. On return home, they were becoming

張德芳, eds. *Dunhuang Xuanquan Han jian shicui* 敦煌懸泉漢簡釋粹 [*Collected annotations to the Han documents from Xuanquan, Dunhuang*] (Shanghai: Shanghai guji, 2001), 56-60, tablets II0214.1:130, V1611.3:39.

[359] On the promulgation of legal knowledge and empire-wide "community" of the users of legal system, see Korolkov, "Arguing about Law", 71; on the imperial "literate community", see below; on the use or non-use of imperial coinage in funerary ritual as a marker of adaptation or resistance to the empire, see, for example, Xiaotong Wu, Anke Hein, Xingxiang Zhang, Zhengyao Jin, Dong Wei, Fang Huang, and Xijie Yin, "Resettlement Strategies and Han Imperial Expansion into Southwest China: A Multimethod Approach to Colonialism and Migration," *Archaeological and Anthropological Sciences* 2019, Online publication, https://doi.org/10.1007/s12520-019-00938-w, accessed November 22, 2019.

transmitters not only of literacy but also of the awareness about the bureaucratic process, which facilitated written administration at the grass-root level.[360]

Another example concerns more elevated social strata. During the Han era, officials' enhanced ability to move across space through their access to the state infrastructures of mobility developed into an important part of elite identity celebrated in visual art and pivotal to the formation, maintenance, and manifestation of social networks. Around the turn of the common era, a commandery functionary in the east of the Han Empire was regularly meeting his social peers while travelling on official missions within and outside his home commandery. His episodic travels to the imperial capital Chang'an provided occasions for fund-raising campaigns among the members of his social network, which were meticulously recorded in the registers eventually placed in this person's tomb.[361] The scope of state-sponsored geographic mobility by this time came to define the social purview of the provincial elites.

The final example has to do with the economic impact of the state-sponsored population clusters such as the one in the metropolitan region in the Wei River basin. These artificial concentrations of population became possible as the result of mass resettlement projects by the Qin and Western Han emperors, on the one hand, and imperial investment in transport and

[360] For soldier literacy and its impact on the society, see Xing Yitian 邢義田 (Hsing I-tian), "Handai biansai lizu de junzhong jiaoyu – du "Juyan xinjian" zhaji zhi san" 漢代邊塞吏卒的軍中教育—讀《居延新簡》劄記之三 [Army education for officials and servicemen at the frontier fortifications of the Han era: Reading notes on the *Juyan Xinjian* [*New documents from Juyan*], part 3], *Dalu zazhi* 大陸雜誌 87.3 (1993): 1-3; Ji Annuo 紀安諾 (Enno Giele), "Handai biansai beiyong shuxie cailiao jiqi shehuishi yiyi" 漢代邊塞備用書寫材料及其社會史意義 [Writing materials at the Han-era frontier fortifications and their implications for the social history], in *Jianbo* 2 (2007): 475-500; Yates, "Soldiers, Scribes, and Women," 339-369. A recent study argued that the "literate community" on the northwestern frontier of the Han Empire involved not only formally literate individuals but also those who unable to read or write, who were nevertheless affected by the culture of written communication. See Sanft, *Literate Community in Early Imperial China: The Northwestern Frontier in Han Times* (Albany: State University of New York Press, 2019).

[361] For a detailed discussion of these documents, see Korolkov, "'Greeting Tablets' in Early China: Some Traits of the Communicative Etiquette of Officialdom in Light of Newly Excavated Inscriptions," *T'oung Pao* 98 (2012): 295-348.

communication infrastructure, on the other. As the loci of government and, in the case of capital region, the emperors' court itself, these centers of urbanism and monetization possessed additional advantage of attractiveness for aspiring officials, courtiers, and intellectuals. They also enjoyed a privileged positioning in the imperial transportation and provisioning networks. With the formation of overlapping regional marketing territories for artisanal products such as lacquerware, stone carving, bronzes, etc. during the Western Han era,[362] metropolitan tastes and consumer power should have been instrumental in the standardization of material culture across much of the empire, a phenomenon well-attested in archaeological record not only in China but also in the Roman Mediterranean.[363] In the early Chinese empires, this process was facilitated by the initial dependence of populations assembled in the newly created "state spaces" on the state-distributed materials and goods.[364]

[362] For the marketing territories in the Han Empire and their role in the spread of artisanal styles across the empire, see Barbieri-Low, *Artisans*, 131-138.

[363] For the argument that the state-organized, large-scale resettlement programs were a tangible mechanism for acculturation, see Scheidel, "Human Mobility in Roman Italy, I: The Free Population," 1-26. For the standardization of consumer tastes in the Roman Empire, see, for example, Kevin Greene, "Learning to Consume," 64-82; and Hitchner, "Roads, Integration, Connectivity, and Economic Performance," 230-232.

[364] The produce of the state-managed lacquerware and bronze workshops, for example, was not only used at the imperial court but also broadly distributed among the officials, aristocrats, and foreign allies. For their high quality and distinctive decorative style, these items enjoyed popularity and prestige and found their way to the most distant corners of the empire. By deliberately imitating these lacquerwares and bronzes, private manufacturers contributed to spreading the "imperial" consumption culture, even though such imitations often lacked the quality of the originals and diverged in terms of decorative design. For the distribution of lacquer items manufactured at the state-run factories in the Qin and Han empires, see Zhao Huacheng and Gao Chongwen, *Qin Han kaogu*, 178-192. For the private artisans marketing their lacquer and bronzewares as the produce of the imperial workshops, see Barbieri-Low, *Artisans*, 142-152.

Chapter 6 : The state and the private economy

The ideologists of the self-strengthening reforms in the mid-fourth century state of Qin cherished the idea that under the new socio-economic regime, the private economy would be fully subsumed under the state dirigisme. Influential private actors, "the strong" (*qiang* 強/彊), had to be suppressed or eliminated, while the government instruments of social ranking, wealth distribution, and criminal justice would define the economic behavior of the rest. This belief in the all-encompassing power of the state is recapitulated in the compendium of the official Qin thought, the *Book of Lord Shang*: "The people can be induced to till and fight, can be induced to become itinerant servants, and can be induced to study: it all depends on how superiors grant them [ranks and emoluments]."[1]

These policies seem to have enjoyed initial success. Not only did the reforms bring about the transformation of agricultural and settlement landscape in the Wei River basin and some other regions subject to intensive Qin colonization in the middle and late Warring States period, they also appear to have resulted in the thorough transformation of consumption habits, at least insofar as the later are manifested in the mortuary evidence.[2] While this change probably owed much to the evolving ideas about the afterworld, which were part of the broader religious transformation in the Eastern Zhou world, its temporal coincidence with the Shang Yang reforms lends support to

[1] *Shangjun shu zhuizhi*, 5.131. Translation follows Pines, *The Book of Lord Shang*, 233.

[2] Falkenhausen, *Chinese Society*, 319-320; Shelach and Pines, "Secondary State Formation," 217-219.

the reformers' conviction of the government's ability to shape the economic behaviors of its subjects.[3]

By the end of the Warring States period and especially under the empire, the pattern of engagement between the state and the private economy changed considerably. Although the government did not abandon its policies of economic management, it increasingly recognized the autonomy of private markets and its own inability to substitute the latter with distributive schemes, notably the land distribution system (see Chapter 2). In its engagement with private economic actors, the Qin government was primarily guided by considerations of taxation and procurement of resources; cost-reduction in the state economy; and maintenance of general public order through delineation of rights and obligations.

A brief comment is due concerning the use of the terms "official marketplaces" and "private markets" in this chapter. When I talk of "private markets," I refer to the trade networks involving non-state actors such as individual households, larger kinship-based or tribal groups, etc. Within these private markets, commercial transactions could be and were carried out in various places and settings, some of which are going to be discussed in this chapter. In contrast, the "official marketplaces" were specially designated sites within the administrative centers upward of the county level, where commerce was conducted by both private traders and government agents (e.g., state-managed workshops) under the supervision and protection of the local officials.[4] During much of the middle and late Warring States, the Qin state mainly engaged with private markets at the official marketplaces, but the imperial Qin period witnessed the emergence of a

[3] For the Eastern Zhou religious transformation, see Falkenhausen, *Chinese Society*, 293-325.

[4] For an English-language discussion of the spatial and institutional organization of the official markeplaces in early imperial China, see Barbieri-Low, *Artisans in Early Imperial China*, 121-124.

range of new legally recognized settings where this engagement was taking place. I suggest that this development paved way to the expansion of market networks during the subsequent Han era.

The first section of this chapter discusses the government's role in establishing and authenticating property rights, which some economic historians consider the state's major contribution to reducing transaction costs in the economy.[5] I consider two examples, land titling and the distribution of property by will. The second section deals with the government's engagement with private markets and addresses the official regulation of prices; procurement practices; and merchandizing the products manufactured by the state economy through the markets. The third section considers the examples of private commercial enterprise in the excavated Qin documents. The fourth section is devoted to the evidence for the monetary economy. The chapter primarily relies on the evidence of the Qianling county archive that provides a unique snapshot of the local economy in the Qin Empire.

1. Taxation, transaction costs, and public order: authentication of property rights

1.1. Ownership of agricultural land

In traditional scholarship going back to the Western Han era, the mid-fourth century BCE Qin reformer Shang Yang was accused of breaking up the ancient communal landholding and promulgating the private property of land.[6] Backed by the authority of the great classical scholars Dong Zhongshu (179–104 BCE) and Zhu Xi 朱熹 (1130–1200 CE) and based on the misinterpretation of one passage in the *Shiji* account about the Qin reforms, this view has been

[5] See, for example, Giuseppe Dari-Mattiacci, "The Economic Perspective," 273-290.

[6] For one of the earliest such accusations, see *Hanshu*, 24A.1137.

proven wrong with the discovery of legal and administrative documents from the late Warring States, Qin, and Western Han periods. These texts demonstrate that the official land tenure system during the formative age of the early Chinese empires was that of state-managed redistribution of agricultural land, under which the level of social rank (*jue*) defined the individual's entitlement to land holding (see Chapter 2 for a detailed discussion).[7]

As has been mentioned in Chapter 2, one of the major economic policy changes under the First Emperor of Qin was the recognition of private land tenure conditioned on the self-declaration of landed possessions in 216 BCE. This measure most likely pursued the goal of increasing the collection of land tax. Its effects are reflected in the Qianling archival documents that include two applications for the official recognition of private holding of newly opened up land:[8]

> 卅五年三月庚寅朔丙辰，貳春鄉茲爰書：南里寡婦愨自言：謁豤草田故桑地百廿步在故步北，恒以為桑田。
> 三月丙辰，貳春鄉茲敢言之。上，敢言之。詘手。（正）
> 四月壬戌日入，戍卒寄以來。瞫發。詘手。（背）
>
> *Front side*
> In the thirty-fifth year [of King Zheng, i.e., the First Emperor], in the third month, *geng-yin* being the first day of the month, on the day *bing-chen* (May 13, 212 BCE), Zi, the [Head of] Erchun District, [submits] the transcript [of a statement]: Yin, a widow from Nan Village, states the following: "I apply that the 120 [square] paces of wasteland that used to be a mulberry orchard and [that I] newly opened up for cultivation to the north of [the old] fields (?) be in perpetuity made mulberry land."

[7] The literature on the subject is quite extensive. Some of it has been referred to in Chapter 1. For more general discussion of the history of land tenure in the Warring States era, see, for example, Yuan Lin 袁林, *Liang Zhou tudi zhidu xinlun* 兩周土地制度新論 [*A new study of the land regime under Western and Eastern Zhou*] (Changchun: Dongbei shifan daxue, 2000), 215-339; and Shen Changyun 沈長雲 and Yang Shanqun 楊善群, *Zhanguo shi yu Zhanguo wenming* 戰國史與戰國文明 [*Warring States history and Warring States civilization*] (Shanghai: Shanghai kexue jishu wenxian, 2007), 38-43.

[8] *Liye Qin jiandu*, vol. 2, 21-23, tablet 9-15. For the translation of this document, see also Yates, "The Economic Activities of a Qin Local Administration."

In the third month, on the day *bing-chen*, Zi, the [Head of] Erchun District, dares to report this: [I] submit [the document], dare to report this. Drafted by Qu.

Back side
In the fourth month, on the day *ren-xu* (May 19, 212 BCE), in the evening, delivered by the frontier soldier Qi. Opened by Shen. Drafted by Qu.

Another similar document was drafted in the Town District of Qianling County and is dated 214 BCE. In contrast to the above-quoted text, this record deals with the land that was opened up as an agricultural field (*tian* 田) rather than orchards.[9] In both cases the declaration is limited to the newly opened-up lands. According to the government-sponsored land distribution scheme that functioned in Qin from the mid-fourth century BCE, settlers received land plots on the strength of their social rank. Now these could be legally complemented by developing wasteland, conditioned on the declaration of such holdings to the government officials.

The mentioning of "permanent registers" (*heng ji* 恆籍) with regard to the self-declaration of land may point at the exclusion of such plots from the redistribution scheme. The early Western Han statutes "On households" (*hu lü* 戶律) and "On establishment of heirs" (*zhi hou lü* 置後律) from Zhangjiashan indicate that land allotments were regularly redistributed as social ranks and associated entitlements were downgraded significantly upon inheritance.[10] This system was most likely inherited from the Qin, and it embodied "one of Lord Shang's key

[9] *Liye Qin jiandu*, vol. 2, 477-478, tablet 9-2344. For translation, see Chapter 2, section 3.1.

[10] See *Ernian lüling yu Zouyanshu*, 214-227, slips 305-346; 235-241, slips 367-391; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 783-822, 850-872. For a discussion of the relationship between the downgrading of social rank upon inheritance to the land-allotment system, see, for example, Liu Xinning, *You Zhangjiashan Han jian* Ernian lüling *lun Han chu de jicheng zhidu*, 108-132.

anti-aristocratic principles."[11] A document from the Qianling archive, dated March 17, 220 BCE, directly attests to the existence of the "establishment of heirs" (*zhi hou* 置後) regime under the Qin.[12] It deals with the official appointment of heirs to the officers and servicemen who recently died in Zhang Commandery 鄣郡 to the south of the Yangzi Delta, where the Qin army campaigned against the local Yue tribes.[13]

The scope and the very existence of a private land market in the Qin are still debated. There is almost no evidence for private transactions in agricultural land in either the Warring States or the imperial Qin. In contrast to the mid-Western Han situation, land is conspicuously absent from the Qin lists of individual property, some of which are discussed later in this chapter.[14] The Qianling archival documents published so far contain no record of land sales. However, private purchase and sale of agricultural land had already become a common practice by the second decade of the Western Han. The procedure for such transactions was regulated by the legal statute that required local authorities to record the changes in the land title within one day after the sale.[15]

[11] Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 851.

[12] *Liye Qin jiandu*, vol. 2, 181-183, tablet 9-705+9-1111+9-1426.

[13] For the Qin campaigns against the Min-yue 閩越 people to the south of the Lower Yangzi, which resulted in the foundation of a number of new commanderies, including Zhang Commandery, see Brindley, *Ancient China and the Yue*, 95. For the geographical location of this commandery, see *Zhongguo lishi dituji*, vol. 2, 11-12.

[14] For a recent comparative discussion of the Qin and Han property lists, see Qi Jiwei 齊繼偉, "Qin Han "zishui" bulun – cong Yuelu Qin jian "Shi jie Wan an" shuoqi" 秦漢"訾稅"補論--從岳麓秦簡"識劫婉案"說起 [Additional notes on the "property tax" under the Qin and Han, with reference to the "case of Shi coercing Wan" from the Yuelu Academy collection of Qin documents], in Wu Wenling, ed., *Jianbo yanjiu 2017. Chun xia quan* (Guilin: Guangxi shifan daxue, 2017), 163-175.

[15] *Ernian lüling yu Zouyanshu*, 220-221, slip 322; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 797.

By recognizing and officially registering private entitlements to the newly opened up land, the Qin authorities facilitated the transition to the private land market, which became the main mechanism for the redistribution of land resources after the decline of the official allotment scheme in the early decades of the Western Han era. It should be pointed out that many important parts of this transition remain poorly understood. As of present, it is still unclear when and under what circumstances individuals' right to dispose of land holdings came to include not only privately reclaimed lands but also those distributed by the state. We also do not know if agricultural land could be legally purchased and sold under the Qin, or if private titles in land only meant that the respective parcels were excluded from government-managed redistributions. As already argued in Chapter 2, the collapse of the Qin state economy in the late third century BCE might have accelerated the formation of private land tenure and a market in land by curtailing the government's ability to enforce its redistribution scheme.

1.2. Authorization of property transfers

The Qianling archive also offers the earliest evidence for the official authorization of disposal of property by private individuals. Two such documents have been published so far:[16]

> 卅二年六月乙巳朔壬申，都鄉守武爰書：高里士五武自言以大奴幸、甘多，大婢言、言子益等，牝馬一匹予子小男子産。典私占。初手。（正）
> 六月壬申，都鄉守武敢言：上。敢言之。/初手。
> 六月壬申日（旦），佐初以來。/欣發。初手。（背）
>
> *Front side*
> In the thirty-second year [of King Zheng, i.e., the First Emperor], in the sixth month, *yi-si* being the first day of the month, on the day *ren-shen* (August 13, 215 BCE), Wu, the

[16] *Liye Qin jiandu*, vol. 1, 326-327, tablet 8-1443+8-1455; 356-357, tablet 8-1554.

provisional [Head of] Town District, [submits] the transcript [of a statement]: Wu, a commoner from the Gao Ward, requests in person [that his] adult male slaves Xing and Ganduo, adult female slave Yan, Yan's child Yi, and others as well as one mare be given to [Wu's] non-adult son Chan. Attested by Si, the Head of the ward. Drafted by Chu.

Back side
In the sixth month, on the day *ren-shen*, Wu, the provisional [Head of] Town District, dares to report this: [I] submit [the document], dare to report this. / Drafted by Chu.
In the sixth month, on the day *ren-shen*, in the morning. Delivered by the Assistant Chu. / Opened by Xin. Drafted by Chu.

卅五年七月戊子朔己酉，都鄉守沈爰書：高里士五廣自言：謁以大奴良、完，小奴嚎、饒，大婢闌、願、多、□，禾稼、衣、器、錢六萬，盡以予子大女子陽里胡，凡十一物，同券齒。
典弘占。（正）
七月戊子朔己酉，都鄉守沈敢言之：上，敢言之。/沈手。
七月己酉日入，沈以來。/擇半。沈手。（背）

Front side
In the thirty-fifth year [of King Zheng, i.e., the First Emperor], in the seventh month, *wu-zi* being the first day of the month, on the day *ji-you* (September 3, 212 BCE), Shen, the provisional [Head of] Town District, [submits] the transcript [of a statement]: [I] apply that the adult male slaves Liang and Wan, non-adult male slaves Shou and Rao, adult female slaves Lan, Yuan, Duo, and …, [as well as] crops, clothes, implements, and (or: worth?) 60,000 cash are fully given to [his] child, the adult female Hu of Yang Ward. Altogether eleven items, [all recorded on] the same notched tally.[17]
Attested by Hong, the Head of the ward.

Back side
In the seventh month, *wu-zi* being the first day of the month, on the day *ji-you*, Shen, the provisional [Head of] Town District, dares to report this: [I] submit [the document], dare to report this. / Drafted by Shen.
In the seventh month, on the day *ji-you*, at the dusk, delivered by Shen. / Opened by Ze. Drafted by Shen.

It is unclear whether these texts were wills. In the official language of the early Western Han period, wills were referred to as *xianling* 先令 (lit. "the order preceding [someone's

[17] Notches on the left side of the tablet correspond to the figure 60,000, see *Liye Qin jiandu*, 356-357, tablet 8-1554, n. 7.

death]"), the term that is unattested in the Qianling archival documents. At the same time, the above-quoted records of property transfers seem to conform to the will-making procedure outlined in the Western Han "Statute on households" from Zhangjiashan: "The Head of District is to listen personally to his (the will maker's) directives and, in every case, is to write it up in a tripartite contract tally and immediately report it up [to the County Court], just as with the household registers."[18] Similarly, in the Liye cases, private individuals declared their intention on property distribution to the district head who recorded the plea in writing and submitted it to the county court. In the latter of the above-quoted examples, this record is explicitly named "tally" (*quan* 券), the term that is also used in the Han statute.

The Zhangjiashan statute emphasizes that the main goal of will-making was the prevention or resolution of disputes concerning the ownership of property: "When there is one who disputes [the will], carry out matters according to the written contract tally. If there is no written contract tally, do not listen to it (viz., the dispute)."[19] It is likely that the Liye records of property transfer pursued the same goal, effectively protecting the ownership rights of the recipients and facilitating potential property transfers in the future. While neither the Liye nor Zhangjiashan records explain if the written confirmation of ownership had to be presented at the sale of a property, such confirmation could be easily available in case the document was indeed a "tripartite tally" (*san bian quan* 參辨券) composed of three identical copies, one stored at the county court, one at the district, and one held by the private individual concerned.[20] The

[18] *Ernian lüling yu Zouyanshu*, 223-224, slips 334-336; translation follows Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 801, with minor changes.

[19] *Ernian lüling yu Zouyanshu*, 223-224, slip 335; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 801.

[20] For a discussion of "tripartite tallies," see, for example, Xing Yitian 邢義田 (Hsing I-tien), "Zailun san bian quan – du Yuelu Shuyuan cang Qin jian zhaji zhi si" 再論參辨券—讀岳麓書院藏秦簡札記之四 [A re-appraisal of tripartite

Han statute unambiguously indicates that the will was a "tripartite tally," but such a statement is absent in the Liye texts. Even so, it stands to reason to assume that both types of documents served as official authentication of property titles and as such contributed to the reduction of transaction costs in the event property changed its owner.

It is important to point out that in the two Qianling cases, the authentication procedure involved not only the district authorities but also the community chief (*dian* 典) who was required to attest (*zhan* 占) that the listed property in fact belonged to the person who was disposing of it. This was a standard Qin procedure for identifying the property owner. A model case record excavated from the Qin tomb at Shuihudi prescribed that the district head in charge of sealing and guarding the property of a person under investigation made the community chief and a member of the suspect's group of five certify that suspect's entire property had been impounded: "If A (suspect) has [other] (property) that matches being sealed and guarded, which (you) have omitted and not attested in writing, you will have committed a crime."[21] In both cases, the government was utilizing the local knowledge to officially establish and record ownership of property. While the early Western Han statute does not mention community chiefs, the earliest excavated specimen of a will, dated 5 BCE, attests to the participation of county and district officials along with the community authorities in the authorization of wills.[22]

tallies, being the fourth reading note on the Qin documents in the Yuelu Academy collection], *Jianbo* 14 (2017): 29-35.

[21] *Shuihudi*, 149, slips 8-12; translation follows Hulsewé, *Remnants*, 184-185, with minor changes.

[22] Chen Ping 陳平 and Wang Qinjin 王勤金, "Yizheng Xupu 101 hao Xi Han mu "xian ling quan shu" chukao" 儀徵胥浦 101 號西漢墓《先令券書》初考 [A preliminary study of the "will tally document" from the Western Han tomb no. 101 at Xupu, Yizheng], *Wenwu* 1 (1987): 20-25.

As already mentioned, the Qin lists of individual property did not include agricultural fields. This makes them different from the similar documents from the Western Han era. The Zhangjiashan "Statute on households" lists "agricultural and residential plots, slaves, and valuable items" (*tianzhai nubi caiwu* 田宅奴婢財物) as private assets disposed of by means of a will.[23] The late Western Han will excavated from a tomb at Xupu 胥浦 in present-day Jiangsu Province deals exclusively with the distribution of agricultural land and mulberry orchards among the will-maker's children.[24]

The private assets in the Liye records of property transfer included slaves, livestock, grain, clothes, and implements or tools (*qi* 器). This list is almost a verbatim repetition of the itemization of impounded property in the model legal case from Shuihudi that mentions, apart from the person's house and family members, the slaves 臣妾, clothes 衣, implements/tools 器, and livestock 畜產.[25] The mentioning of a substantial amount of cash in one of the Liye documents is intriguing. These 60,000 coins may be yet another item of distributed property, but it may also be an official valuation of all the items on the list. The notches on the left edge of the tablet correspond to the amount in cash and do not relate to the number of other objects and persons mentioned in the text. Also, the total number of distributed items, eleven, seems to correspond to eight slaves plus grain plus clothes and implements.

[23] *Ernian lüling yu Zouyanshu*, 223, slip 334; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 801.

[24] Chen Ping and Wang Qinjin, "Yizheng Xupu," 20. For the English translation and study of this document, see Bret Hinsch, "Women, Kinship, and Property as Seen in a Han Dynasty Will," *T'oung Pao* 84.1/3 (1998): 1-20. I am thankful to Robin D.S. Yates for bringing this study to my attention.

[25] *Shuihudi*, 149, slip 8; Hulsewé, *Remnants*, 184.

One striking feature of the property lists from Liye is the relatively large number of slaves owned by the Qianling residents. Neither of the two individuals had any social rank, yet one of them owned four slaves, and another one had eight slaves. If the 60,000 cash in the second document is, indeed, a valuation of the distributed property, then it is likely that almost half of the household property value was represented by these slaves. According to the Qianling document dated November 4, 217 BCE, one adult male slave commanded the price of 4,300 coins, and one non-adult male slave, 2,500 coins.[26] The price of an adult female slave is unknown, and of course prices could have changed between 217 and 212 BCE. Yet, if the 217 BCE prices are applied, the four male slaves recorded on the tablet 8-1554 would have had the value of 13,600 cash, which could have doubled if the four adult female slaves were added.

In Chapter 4, I already suggested that the massive presence of convicts in the population in Qianling and the practice of selling or leasing out convicts to private individuals resulted in relatively large number of private dependents in the area. This may have applied more generally in the southern regions of the Qin Empire, where the colonization of new lands relied heavily on government-organized resettlement of convicts. The legal case from Shuihudi, which was in the territory of Nan Commandery under the Qin, mentions two slaves owned by a commoner household.[27] Sale, purchase, and transfers of unfree laborers likely represented a very high percentage of transaction value in the private economy in the south of the Qin Empire.

This impression is confirmed by the Qin legal statute from the Yuelu Academy collection that regulates the sales of property across county borders, that probably qualified as long-distance transactions and therefore involved a considerable degree of uncertainty and

[26] *Liye Qin jiandu*, vol. 1, 306-307, tablet 8-1287.

[27] *Shuihudi*, 149, slip 10; Hulsewé, *Remnants*, 185.

risk.[28] This text has already been discussed in Chapter 2 with regard to the authorization fees (*zhi*) that the government charged on such sales. Here I would like to highlight two other implications of this legal article. First, it deals with specific types of property – horses, cattle, and slaves – that probably represented merchandise frequently sold over long distances. This may be explained by their relatively high value and by the fact that these were self-propelled items that could be moved over a distance at relatively low cost. Second, by issuing travel documents that, in all likelihood, not only contained detailed descriptions of the humans and animals in question (see Chapter 5) but also verified ownership, the Qin authorities effectively mitigated transaction risks. For the long-distance transactions, the state with its ability to verify and transfer information over distances was (as it still is) uniquely positioned to do so. While hardly measurable, its contribution to reducing transaction costs in the market for livestock and unfree labor was probably important in the development of interregional private commerce described in the Han-era sources.[29]

2. The government's engagement with private markets

Although the physiocratic financial organization that took shape in the state of Qin in the course of the mid-fourth century BCE transformation relied on the state-managed distribution of in-kind resources and manpower, the Qin statesmen reluctantly recognized the markets as a tool of state procurement. In its discussion of "army markets" (*jun shi* 軍市) where soldiers could

[28] *Yuelu shuyuan cang Qin jian*, 133-134, slips 198-201.

[29] See, for example, *Shiji*, 129.3277-3281; *Hanshu*, 91.3690-3694.

acquire supplies, one of the early chapters of the *Book of Lord Shang* emphasizes the need for strict regulation[30]:

> 而命其商令人自給甲兵，使視軍興。又使軍市無得私輸糧者，則姦謀無所於伏，盜輸糧者不私稽，輕惰之民不游軍市。盜糧者無所售，送糧者不私。
>
> Order the merchants (in these markets) to prepare armor and weapons for themselves; let them watch when the army rises. Also, order that no one transfer grain privately to the army's markets. Then evil stratagems will have no place from which to arise, those who illicitly transport grain will not hoard it privately, and lazy and indolent people will not drift to the army's markets. There will be no place to sell stolen grain, and the suppliers of grain will have no private [benefit].

Here, the traders (*shang* 商) figure more as the state agents who receive orders, accompany the troops and are prepared to defend themselves, and who are charged with distributing the grain collected and delivered by the government, rather than as private entrepreneurs making a profit from participation in the military procurement system. The Qin authorities considered markets as a venue for the government to sell the products of the state economy, as suggested by the extant Qin statute "On passes and markets" (*guan shi lü* 關市律). The fragment of this statute excavated at Shuihudi stipulates that "for transactions by [government-managed] workshops as well as government storehouses, whenever cash is received, it must be entered in the money-box."[31] The fragment from the Yuelu Academy collection prescribes that market transactions involving the county government were to be supervised by the county scribes.[32]

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[30] *Shangjun shu zhuizhi*, 1.15-16; translation follows Pines, *The Book of Lord Shang*, 129. For the early, pre-350 BCE date of the second chapter of the *Book of Lord Shang* that contains this passage, see Pines, *The Book of Lord Shang*, 52-53.

[31] *Shuihudi*, 42-43, slip 97; translation follows Hulsewé, *Remnants*, 56.

[32] *Yuelu shuyuan cang Qin jian*, vol. 4, 148, slip 243.

Yet, as discussed in Chapter 2, the place of markets in the state finance did not remain static throughout the late Warring States and the imperial Qin period. Increasing logistical difficulties in operating the distributive economy pushed Qin authorities not only to increase their engagement with private markets but also to somewhat deregulate commercial activity of both private and government agents in order to increase the efficiency of markets. Some important innovations in the official regulation of trade date to the imperial Qin period and point at the importance of empire-building in shaping the institutions and practices of the state-market relationship.

2.1. New trends in the official regulation of trade

Comparison between the Qin regulations of market trade from the late Warring States and the imperial periods highlights some important changes in the official approach to trade. In the Shuihudi statutes, conventionally dated to the pre-imperial period, commercial transactions were supposed to take place at the official markets where the traders rented stalls from the local government.[33] The "Statute on finance" (*jinbu lü*) from the Yuelu Academy collection, dated to the post-221 BCE period, recognizes and regulates a number of novel modes of making trade:[34]

> · 金布律曰：市衢術者，沒入其賣殹（也）于縣官，吏循行弗得，貲一循（盾）。縣官有賣殹（也），不用此律。有販殹（也），旬以上必於市，不者令續（贖）罨（遷），沒入其所販及賈錢于縣官。典、老、伍人見及或告之而弗告，貲二甲。有能捕告贖罨（遷）臯一人，購金一兩。賣瓦土骰（墾）糞者，得販賣室中舍中，租如律令。

[33] See, for example, *Shuihudi*, 36-37, slip 68; Hulsewé, *Remnants*, 53. For a discussion, see Chapter 1.

[34] *Yuelu shuyuan cang Qin jian*, vol. 4, 109, slips 124-126.

> The "Statutes on finance" state: Those who trade along the roads should have their merchandise confiscated by the county authorities. When the officials inspect [such illegal activities] but fail to detain [the culprits, they should be sentenced to] a fine of one shield.[35] When it is the county offices that are selling [their goods in such a way], do not apply this article.
> When there are itinerant traders, and [they engage in their business] for longer than ten days, they must do so at the [official] market. Those who do not should be ordered to redeem the [punishment of] exile, and their merchandize and the cash they have made from these sales should be confiscated by the county authorities. If the community chiefs, elders, and members of the group of five have seen [this], or when there is someone who was able to report but did not report, fine [them] two suits of armor.[36] If there are those who were able to arrest or report one person who [committed] the crime [warranting the payment of] redemption fee for exile, reward them one *liang* (approx. 15.5g) of gold.
> [Those who are] selling tiles, earthen bricks, or manure get [the right] to conduct their small-scale commerce from their houses and lodges, paying the [market] tax according to the statutes and ordinances.

This legal article is our earliest evidence for the official regulation of commercial practices that certainly existed before but were probably considered illegal. Roadside trading is attested in the Qin legal case dated, alternatively, from either 242 or 227 BCE, where it is conducted by a murderer trying to sell his victims' clothes.[37] Such cases may explain why the government was suspicious of any commerce conducted outside of the official markets where traders and their merchandise were subject to official scrutiny and where it was much more difficult to get away with the sale of stolen or robbed goods.[38] While the roadside trade was still banned by the above-

[35] Equivalent to 384 coins.

[36] Equivalent to 2,688 coins.

[37] *Yuelu shuyuan cang Qin jian*, vol. 3, 185-195, slips 150-170; Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 228-246. For the alternative dates of the case, see Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 229, n. 1089.

[38] Officials stationed at the market posts (*shi ting* 市亭) were responsible, among other things, for detecting suspicious traders and merchandize, as illustrated by a Qin legal case revolving around an attempted sale of a stolen cow, which was detected and reported by the market official. See *Ernian lüling yu Zouyanshu*, 359-363, slips 99-123; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1303-1331.

quoted statute, exception was made for the trading agents of the government offices. The Liye documents indicate that in Qianling county convicts were often employed in this capacity.[39] In this case, the willingness to increase profits by exploiting additional trading venues outweighed security concerns.

Another trade liberalization measure was the official regulation of small-volume itinerant trading (*fan* 販) outside the official markets. Although the article is primarily concerned with limitations and punishments, significant is the recognition of such trade in principle, even if subject to serious restrictions. There is no single reference to the itinerant traders in the entire Shuihudi corpus of legal documents, which may be suggesting that such a mode of commerce was not considered an object of official regulation in the Warring States Qin. It was likely either fully banned or deemed marginal to the extent of irrelevance. Emerging concern about this group of commercialists in the imperial legislation may point at the realization of their significance as taxpayers or of their importance as trading partners for the state economy, or probably both.[40]

Finally, the statute legalizes the sale of tiles, bricks, and manure directly from vendors' houses or workshops. All these were bulky and of low-value, and in case of tiles and bricks also fragile items. They were probably mainly traded over short distances, likely between neighbors, so it only made sense that the sellers were not required to ship merchandize to the market at the

[39] For the convicts employed as trading agents by the county government offices, see, for example, *Liye Qin jiandu*, vol. 1, 460, tablet 8-2339; *Liye Qin jiandu*, vol. 2, 91-92, tablet 9-228. For a convict assigned the task of selling a cow, see the register of convict laborers on tablet 8-2089 (*Liye Qin jiandu*, vol. 1, 427-428), esp. the transcription of the final line in He Youzu, "Du Liye Qin jian zhaji (si)" 讀里耶秦簡札記（四） [Miscellaneous reading notes on the Liye documents, part 4], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2271, accessed February 11, 2019.

[40] Robin D.S. Yates points out that the Qin probably encountered much of this type of trade in the lands they conquered during the final decade of the Warring States period (Yates, personal communication). This is a reasonable supposition, considering that the eastern part of the Zhou world was more commercially developed than the Qin heartland.

county town.[41] The reason why these three commodities were singled out for regulation is unclear. The wording of the Yuelu Academy statute suggests that the right to conduct small-scale sales of tiles, bricks, and manure from their residences was granted recently (*de fan* 得販, "get [the right] to conduct small-scale commerce").

All three modes of commerce addressed in the imperial "Statute on finance" – roadside, itinerant, and home-based trading – were almost certainly practiced long before the legal regulation. However, interpreting it as simply as a recognition of existing practices by the government misses the effects and implications of such recognition. The former are relatively easy to see. Legal recognition of previously outlawed or neglected forms of commerce reduced the risks for the agents and correspondingly lowered transaction costs. Conditioned on complying with the regulations (e.g., paying taxes, completing business within the prescribed time limits), participants of such transactions were guaranteed from criminalization of their behavior and could probably also appeal to official justice for enforcement of contracts and protection of property rights.

Equally important were the implications of the new trade regulation. The official view of trading expanded beyond the limits of county town markets that served primarily as a vehicle for selling the produce of government-managed craft workshops. In the longer run, recognition of the vast world of private commerce had important consequences for the reorientation of state finance from direct organization of production and distribution to market-oriented measures such as trade monopolies, monetary policy, and price management through government interventions in the market. More immediately, the Qin state sought to expand its access to private commerce as a

[41] The Liye documents suggest that under certain circumstances, tiles could be also transported over longer distances with the help of boats. See *Liye Qin jiandu*, vol. 1, 72-76, tablet 8-135.

source of taxes, instrument of state procurement, and means of circulating the produce of state economy.

2.2. Price management

The imperial Qin period was a time of important changes in the official policy of price management. It was associated with the introduction of "fair-market prices" (*ping jia* 平價), which eventually became one of the key instruments of price regulation during the Han era.[42] The term does not occur in the Shuihudi materials, suggesting it was introduced around the time of the completion of imperial conquest in 221 BCE, which coincided with the large-scale reform of the official vocabulary. This does not mean that any sort of price management was unfamiliar to the late Warring States Qin. A model legal case from the collection titled "Models for sealing and investigating" (*feng zhen shi* 封診式) excavated at Shuihudi refers to a "correct market price" (*shi zheng jia* 市正賈/價) in the context of the government's purchase of a slave from a private owner.[43]

Since this is the only mention in the entire Shuihudi corpus, it is hardly possible to conclude whether or not the "correct market price" was the same as the "fair-market price" of the imperial Qin texts. What is clear, however, is that the "correct market price" was not applied in the sales conducted by the government. Consider the situation when the government-owned cattle died, and its hides, horns, sinews, and meat were sold, presumably to private buyers. The "Statute on stables and parks" (*jiu yuan* 廄苑) from Shuihudi states that "in case the money [collected] is less than

[42] The term *ping jia* 平價, conventionally written as 平賈 in the excavated Qin texts, can be translated in a number of different ways, for example, as "equitable price," see Swann, *Food and Money in Ancient China*, 342. My translation follows Barbieri-Low and Yates, *Law, State, and Society*, which has also recently been adopted by other authors. See, for example, Sanft, "Paleographic Evidence," 327-358.

[43] *Shuihudi*, 154, slip 39; Hulsewé, *Remnants*, 193.

[the sum stipulated by] the Statute, orders are given to the person(s) concerned to make good the deficiency."[44] While it is unclear which statute the text is referring to, this was probably fixing the price of various government-owned inventories.[45] In other situations when storage officials were charged with shortages, the value of the deficit appears to have been estimated on ad hoc basis.[46] Same referred to the valuation of grain and other foodstuffs issued in rations.[47]

The term "fair-market price" looms large in the post-221 BCE legal and administrative records. It was not a mere vocabulary innovation. Rather, its appearance seems to reflect actual changes in the official management of prices. Before discussing these, let us consider the practical aspects of establishing the fair-market price as reflected in the Qianling county documents:[48]

卅五年十一月辛卯朔朔日，都鄉守擇敢言之：上十一月平賈（價），謁布鄉官。敢言之。/啓手。
十一月辛卯朔己酉，遷陵守丞繹下尉、鄉官：以律令從事。以次傳，別書。/就手。/十一月己酉旦，守府印行尉。（正）
十一月辛卯，都鄉守擇與令史就雜取市賈（價）平。
秫米石廿五錢。
粢（粢）米石廿錢。
毋【賣】它物者。
十一月乙未旦，都鄉佐啓以來。/就發。（背）

Front side
In the thirty-fifth year [of King Zheng, i.e., the First Emperor], in the eleventh month, *xin-mao* being the first day of the month, on the first day of the month (December 19,

[44] *Shuihudi*, 24, slips 18-19; Hulsewé, *Remnants*, 28.

[45] Hulsewé believes this was the "Statute on equipment" (*ji lü* 齎律), see *Remnants*, 29, n. 16; 59, A56, n. 6.

[46] See, for example, *Shuihudi*, 71-72, slips 12-16; Hulsewé, *Remnants*, 95.

[47] *Shuihudi*, 129, slip 153; Hulsewé, *Remnants*, 163.

[48] *Liye Qin jiandu*, vol. 2, 253-254, tablet 9-1088+9-1090+9-1113.

213 BCE), Ze, the provisional Head of the Town District, dares to report this: [I] submit the fair-market prices for the eleventh month and request that this is announced to the district offices. Dare to report this. / Drafted by Qi.
In the eleventh month, *xin-mao* being the first day of the month, on the day *ji-you* (January 6, 212 BCE), Yi, the provisional Vice-Magistrate of Qianling, forwards [this] to the [County] Commandant and the district offices: Proceed on this matter according to the statutes and ordinances. Transmit [the document] according to the sequence [of administrative units], [make] separate copies. / Drafted by Jiu. / In the eleventh month, on the day *ji-you*, in the morning, directed to the [County] Commandant [on the strength of] the seal of the [official] responsible [for the work of the county] court.[49]

Back side
In the eleventh month, on the day *xin-mao* (December 19, 213 BCE), Ze, the provisional Head of the Town District, and Jiu, the county scribe, together estimated the average of market prices.
Husked glutinous millet, 25 coins for one *shi* (approx. 20 liters).
Husked millet, 20 coins for one *shi*.
Other goods should not be sold.
In the eleventh month, on the day *yi-wei* (December 23, 213 BCE), in the morning, delivered by Qi, the Assistant at the Town District. / Opened by Jiu.

This account is our earliest evidence for the procedure of establishing the fair-market price. Two officials, the Head of the Town District, the authority in charge of the Qianling county town (see Chapter 3), and the county scribe who represented the county government, jointly monitored the market prices.[50] They and/or their subordinates probably did so by attending the official market at the county town ("estimated the average of market prices" 取市賈（價）平). The District Head then submitted the price list to the county court, which forwarded it to the outlying districts and to

[49] The compound *shou fu yin* 守府印 can also be translated as "the seal of the office of the [commandery] governor," yet in the present case it is clear that the respective part of the document was drafted at the county court on January 6, 212 BCE, and dispatched on the same day. I interpret *shou fu* 守府 as referring to the official temporarily in charge of (*shou* 守) the county court (*fu* 府). Such word use is attested elsewhere in the Liye documents, where *shou fu* refers to the county-level officials. See, for example, *Liye Qin jiandu*, vol. 1, 148, tablet 8-434; 230, tablet 8-806.

[50] The Qin government usually assigned the tasks related to financial matters and management of supplies simultaneously to two or more officials in order to prevent embezzlement by any one of them. See, for example, *Shuihudi*, 25-27, slips 21-27; 27, slips 29-30; 35-36, slips 64-65. In the present case, such mutual supervision was probably needed to prevent either of the two officials from conspiring with the market traders to set up the fair-market price at a higher level, which would result in financial losses for the government.

the office of County Commandant (*wei*), which was probably located outside the county town. Neither of these subordinate administrative units had an official market of their own, hence the responsibility of the Town District for establishing the fair-market price that could then be applied throughout the county.

The fair-market prices were instrumental in market transactions involving government offices that were obliged to apply these prices in their sales, purchases, and lending operations. For example, when the local governments were issuing grain rations to debtor laborers on the condition they would work off the value of these rations, the latter was assessed on the basis of fair-market grain prices such as those provided by the Town District authorities in the above-quoted document.[51] Such assessment was necessary insofar as the value of debtor labor was defined in monetary terms (see Chapter 4). Dependent laborers were often collecting their rations from the authorities of outlying districts, so the latter had to be updated on the current level of fair-market prices in the county.

By the same token, when county officials were lending or selling government-owned supplies to private individuals, they applied fair-market prices, as illustrated by the Qin "Statute on fields" (*tian lü*) from the Yuelu Academy collection:[52]

> · 田律曰：吏歸休，有縣官吏乘乘馬及縣官乘馬過縣，欲貣芻稾、禾、粟、米及買菽者，縣以朔日平賈（價）受錢。
>
> The "Statutes on fields" state: [With regard to the] officials returning [home] for vacation, when the officials of county offices are riding official horses and official horses [owned by the] offices of the county government, and they pass [other] counties [on their way], if they want to borrow hay and straw, unhusked or husked grain, or to

[51] *Yuelu shuyuan cang Qin jian*, vol. 4, 154, slips 259-260.

[52] *Yuelu shuyuan cang Qin jian*, vol. 4, 104-105, slips 111-112.

buy peas, the county [authorities] should charge them money on the basis of fair-market prices as of the first day of the month.

Why some supplies had to be borrowed (*dai* 貣/貸) while others could be bought (*mai* 買) is a question we cannot presently answer. Another point of interest is that the list of commodities in the statute considerably exceeds that in the Liye text translated at the beginning of this section. Another document from the Qianling archive shows that the fair-market prices were also established for other foodstuffs:[53]

☐【陵】卅年十月盡八月市平賈（價）：
叔（菽）斗三。·☐
麥斗二。☐

…[Qian]ling for the thirtieth year [of King Zheng, i.e., the First Emperor], from the tenth month to the end of eighth month (November 16, 218 BCE – October 5, 217 BCE), fair-market prices:
Peas, three [cash] for one *dou* (approx. 2 liters).
Wheat, two [cash] for one *dou*.

While a large part of the text is missing, it is clear that this document sets prices for some commodities other than millet, in particular, for wheat and peas. One may assume that more than one list of fair-market prices was submitted every year, although the rationale for such a procedure is unclear. Alternatively, it may be that fair-market prices were originally applied only for the sale of government stockpiles, the composition of which varied from year to year. This may help to explain the somewhat cryptic phrase "other goods should not be sold" (*wu mai ta wu zhe* 毋【賣】它物者) in the report on fair-market prices submitted by the Town

[53] *Liye Qin jiandu*, vol. 2, 274, tablet 9-1185.

District (tablet 9-1088+9-1090+9-1113). It is possible that by the beginning of the 35th year of the First Emperor, the Qianling authorities realized that they had some surpluses of millet that could be sold or lent to private individuals, but not of other grains. In other words, the range of applicability of fair-market prices may have been relatively limited at least in some locales of the Qin Empire.

The fragment of price list on the tablet 9-1185 indicates that this list was prepared on the basis of price observations over the previous year, which suggests that the fair-market prices were adjusted on a yearly basis. This is, indeed, the practice attested at the beginning of the Western Han period, when the fair-market price of gold was established in the tenth month of the lunar year, the first month of the year in the Qin and early Western Han calendar.[54] The document on the tablet 9-1088+9-1090+9-1113 implies that in the Qin Empire, fair-market prices were adjusted in the eleventh, not in the tenth month. However, the text on tablet 9-1185 states that prices were observed from the tenth to the end of eighth month, which seems to imply that the responsible officials spent the ninth month processing the collected price records and submitted the price list at the beginning of the following tenth month. It would be difficult to explain the omission of the data for the ninth month and inclusion of the data for the tenth month should such lists always be submitted at the beginning of eleventh month.

I suspect that the Liye documents reflect the early phase in the history of price regulation when official prices for various commodities were adjusted at different points in time. This may

[54] An article from the "Statute on finance" (*jinbu lü*) from the early Western Han collection of legal texts excavated at Zhangjiashan stipulates that individuals willing to pay in cash their gold-denominated fines, redemption fees, or debts owed to the government can do so "according to the fair-market price of gold, [as surveyed] during the tenth month," see *Ernian lüling yu Zouyanshu*, 253-254, slips 427-428; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 923. For a discussion of the fair-market price regulation in the early Western Han statutes from Zhangjiashan, see Wen Leping 溫樂平, "Cong Zhangjiashan Han jian kan Xi Han chuqi pingjia zhidu" 從張家山漢簡看西漢初期平價制度 [The fair-market price regime at the beginning of the Western Han as reflected in the Han texts from Zhangjiashan], in *Qin Han shi luncong*, vol. 9, 457-470.

help to explain the reference to the "fair-market prices as of the first day of the month" in the Yuelu Academy statute. If the official price of millet was established in the eleventh month (and probably became effective starting from the following twelfth month) while the price of peas was adjusted in the tenth month (to become effective in the eleventh month), then the applied price in the eleventh month would have been the "old" price for some commodities and the "new" price for others. Also, it cannot be ruled out that some prices were adjusted in other months. Consequently, the lawgivers deemed it necessary to emphasize that the applied price in each case was the price that was valid on the first day of the month when the sale or lending was taking place.

In fact, it is far from clear if some three decades later, at the beginning of Western Han, there was a single date when the fair-market prices were adjusted for all commodities. The Zhangjiashan "Statute on finance" only mentions the price of gold that was established every year in the tenth month. Other references to the fair-market prices in this legal corpus do not specify the dates when they were adjusted. The earliest evidence for the specific dates on which all official prices were set simultaneously is the *Hanshu* "Treatise on food and currency" that refers to the reign of Wang Mang 王莽 (9–23 CE):[55]

> 諸司市常以四時中月實定所掌，為物上中下之賈（價），各自用為其市平，毋拘它所。眾民賣買五穀布帛絲綿之物，周於民用而不讎者，均官有以考檢厥實，用其本賈（價）取之，毋令折錢。萬物卬貴，過平一錢，則以平賈（價）賣與民。其賈（價）氐賤減平者，聽民自相與市，以防貴庾者。
>
> The Supervisors of the Market habitually in the middle month of each of the four seasons settled definitely all affairs in their charges. [They] established prices for commodities into [three grades], high, medium, and low. Each [Supervisor] himself

[55] *Hanshu*, 24B.1181-1182. Translation follows Swann, *Food and Money in Ancient China*, 341-342, with some changes.

> made use [of these prices] to establish the fair-market [price within his jurisdiction], without being restrained by other places. In the selling and buying by the masses [of such] commodities [as] the five grains, hemp cloth and silk, raw silk, and unspun fibers, which were suitable for general use of the people, if any were unsold, the Equalization Office would be able to examine them closely [in order to know] the real conditions thereof, and paying the original cost would take them over without causing loss of money [to producers]. In case of the ten thousand (that is, all kinds of) commodities, [whenever] prices rose, going above the fair-market [price even by] one cash, then [the officials] would sell [these commodities] to the people at the fair-market price. When prices dropped, falling below the fair-market [price level], the people were permitted to trade among themselves in order to guard against hoarding [of commodities in expectation] of higher prices.

This passage highlights the difference between the official use of fair-market prices in the Qin Empire in the late third century BCE and some two centuries later, in the late Western Han and Xin periods. By the time of Wang Mang, the prices of most important traded commodities, foodstuffs and textiles, were adjusted simultaneously every three months. Scholars suggest the higher frequency of adjustments compared to the Qin and the beginning of Western Han was necessitated by the growing intensity of commerce and price fluctuations.[56] The price seems to have been determined by the median value of traded goods.[57] The government intervened whenever market prices diverged from the fair-market price level.[58] Officials purchased commodities when prices were low and sold them when prices increased, in order to smooth out price fluctuations. In all likelihood, this system of price regulation took

[56] Wen Leping and Cheng Yuchang 程宇昌, "Cong Zhangjiashan Han jian kan Xi Han chuqi pingjia zhidu" 從張家山漢簡看西漢初期平價制度 [The fair-market price regime at the beginning of the Western Han period as reflected in the Han documents from Zhangjiashan], *Jiangxi shifan daxue xuebao (zhexue shehui kexue ban)* 11 (2003): 73-77, esp. 76.

[57] For this observation, see, for example, Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, 236-237. It is important to point out that this principle is stated in no excavated text from the Qin or early Western Han period.

[58] The statement in the *Hanshu* that interventions were made whenever the fair-market price level was exceeded "even by one cash" is probably an exaggeration to emphasize the tightness of the official monitoring of markets under Wang Mang.

shape under the Emperor Wu (141–87 BCE) when other important elements of the government intervention with markets were introduced.[59]

Most elements of this mature price regulation regime are absent in the Qin record. As already observed, prices were established once a year, not every season, and price adjustment dates probably varied for different commodities. Most importantly, there is no evidence to suggest that these prices were used as a barometer to guide the government interventions in private markets, let alone to guide private traders. Instead, their main application in the Qin Empire appears to have been the sale and lending of government stocks. This is the only context of fair-market prices recorded in the legal texts from the Yuelu Academy collection and in the Qianling documents. The latter contain numerous records of county scribes (*lingshi*) "overseeing the fairness" (*shi ping* 視平) of transactions involving government-owned supplies, usually foodstuffs. Some scholars suggested that these officials were in charge of confirming that the fair-market price was applied in such sales.[60] It is less clear if these prices were used in government purchases: no such evidence is available in the published part of the Qianling archive, even though state procurement through markets is amply recorded (see the next section).

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[59] An Zhongyi 安忠義, "Cong "ping jia" yi ci de ciyi kan Qin Han shiqi de ping jia zhidu" 從"平價"一詞的詞義看秦漢時期的平價制度 [An analysis of the fair-market price regime in the Qin and Han periods based on the meaning of the term "fair-market price"], *Dunhuangxue jikan* 敦煌學季刊 2 (2005): 343-349. Some scholars believe that this system can be dated back to the reigns of emperors Wen (180–157 BCE) and Jing (157–141 BCE), but provide no evidence in support of such early dates. See Wen Leping and Cheng Yuchang, "Cong Zhangjiashan Han jian kan Xi Han chuqi pingjia zhidu," 76.

[60] Jiang Feifei, "Jiandu shiliao yu zaoqi zhonghua diguo lixing xingzheng – Yi Liye Qin jian "Si Xiannong" jian weili" 簡牘史料與早期中華帝國理性行政—以里耶秦簡"祀先農"簡為例 [Historical sources on bamboo and wooden tablets and the rational administration in the early Chinese empires: An example of Qin documents on the "sacrifices to Xiannong" from Liye], in Sergei Dmitriev, ed., *Sinologi mira k jubileyu Stanislawa Kucheri. Sobranie trudov* [*Festschrift on the occasion of Prof. Stanislaw Kuczera's 85th birthday*] (Moscow: Institut vostokovedeniya RAN, 2013), 288-320. Other authors, however, suggest a more abstract reading of the phrase as "overseeing the fairness [of the transaction]". See Sanft, "Paleographic Evidence," 327-358.

At the beginning of the Western Han era, the use of fair-market prices somewhat expanded compared to the Qin Empire.[61] It was now used to assess the value of ill-gotten gains, which was the basis for defining criminal penalties;[62] to monetize the bestowals to private individuals and officials when the government was lacking respective physical items;[63] to convert gold-denominated fines, indemnities, and rewards into monetary payments;[64] and to collect some in-kind taxes in cash.[65] The latter point may be useful for illustrating the dynamics in the application of fair-market prices between the imperial Qin and early Western Han periods. While the statutes from both the Yuelu Academy collection and the Zhangjiashan hoard stipulate the possibility of commutation of the household hay tax into monetary payment (see Chapter 2), the Qin regulation stipulates fixed pricing, while the Han statute makes a proviso that whenever hay and straw are more expensive than the fixed price, cash should be taken in according to the fair-market price of commodities.[66]

The regular surveying of market prices to determine the "fair-market price" for various commodities appears to have been introduced around the time of the imperial unification. As in the case of official regulation of trade, the new practice gave due to the growing importance of private markets in the functioning of the state administration. The government already

[61] The data from the Zhangjiashan collection of early Western Han statutes was collected and discussed in Wen Leping and Cheng Yuchang, "Cong Zhangjiashan Han jian kan Xi Han chuqi pingjia zhidu," 74-76.

[62] *Ernian lüling yu Zouyanshu*, 122, slip 80; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 473.

[63] *Ernian lüling yu Zouyanshu*, 211, slip 290; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 769.

[64] *Ernian lüling yu Zouyanshu*, 253-254, slips 247-248; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 923.

[65] *Ernian lüling yu Zouyanshu*, 188, slip 242; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 697.

[66] For the Qin regulation, see *Yuelu shuyuan cang Qin jian*, vol. 4, 107, slips 118-120. For the Han regulations, see *Ernian lüling yu Zouyanshu*, 187-188, slips 240-242; 193, slip 255; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 697, 701.

engaged with markets during the late Warring States period, as suggested by numerous mentions of its transactions with private individuals in the Shuihudi texts. Yet, around 221 BCE some unknown Qin administrators realized that further systematization and rationalization of this engagement was required in order to maximize profits for the state by more closely monitoring the market conditions. Initially, the range of applicability of the official price management was limited to the sale and lending of government-owned commodities and inventories. It gradually expanded over time. By the latter half of the Western Han era, official price surveying was instrumental in the full-fledged state intervention in private markets that transformed the financial organization of the ancient Chinese empire.[67]

2.3. State procurement through markets

Three days after the winter solstice of 214 BCE, the Supervisor of Granaries in Qianling County became concerned about supplying convict laborers with winter clothing. Instead of directly issuing wear to his subordinates, the official disbursed an amount in cash:[68]

> 卅四年十一月【丁卯朔】甲午，倉守壬、佐卻出錢千五百一十八錢，以衣大隸妾嬰等廿八人冬衣，人五十五，其二人各【卌】☐
>
> In the thirty-fourth year [of King Zheng, i.e., the First Emperor], in the eleventh month, [*ding-mao* being the first day of the month], on the day *jia-wu* (December 28, 214 BCE), Ren, the provisional [Supervisor of] Granaries, and Assistant Que issued 1,518 cash to [procure] winter clothes for the adult bondwoman Ying and others, [altogether] twenty-eight persons. 55 [cash] per person, for two persons, 4[4] cash per person…

[67] For a recent discussion of the emergence of a mercantilist fiscal state under the Western Han Emperor Wu (141–87 BCE), which heavily relied on the incomes from indirect monetary taxes, the manipulation of money supply, the monopoly control of lucrative industries, and the government's engagement in commodity trade, see Von Glahn, *The Economic History of China*, 113-120.

[68] *Liye Qin jiandu*, vol. 2, 395-396, tablet 9-1931+9-2169.

On the same day, Supervisor Ren issued robes (*pao* 袍), pants (*ku* 綺), and some local southern clothing (*jia* 幏) to another two groups of convicts.[69] In each of these cases, the monetary price of issued clothing pieces is specified, which might have been the price the officials were willing to pay when purchasing clothing in the market. The need for such purchases is probably explained by the fact that the government ran out of supplies.[70]

The document does not specify the recipient of money, but it seems improbable that convicts were asked to purchase clothes for themselves. More likely, this was done by the officials who could be assisted by specially assigned convicts. Another Qianling document mentions a certain Yin 殷 who was purchasing clothes for convicts (*wei tu mai yi* 為徒買衣) in Linyuan County.[71] This county was located down the Yuan River and was much closer to the great transportation artery, the Yangzi, than Qianling County (see Map 3.5). Linyuan was probably a location of a big market where clothes and other materials could have been bought. Along with Yin, the same document mentions another person, named Chu 處, who was assigned the task of submitting accounts (*shang ji* 上計), usually performed by low-ranking officials. This suggests Yin was also a Qianling official.

Calculations indicate that clothing was purchased, or at least was supposed to be purchased at the fixed official price specified in the Qin legal statutes. According to the "Statute

[69] *Liye Qin jiandu*, vol. 2, 88-89, tablet 9-209; 144, tablet 9-495+9-498.

[70] One document from the Qianling archive reports that the clothing for a certain serviceman did not arrive on time, see *Liye Qin jiandu*, vol. 2, 106, tablet 9-316. Failings of the state-run supply system should have contributed to the local government's need to purchase clothing in the markets. This observation has also recently been made in Yates, "The Economic Activities of a Qin Local Administration."

[71] *Liye Qin jiandu*, vol. 2, 185, tablet 9-709+9-873.

on finance" (*jinbu lü*) from Shuihudi, winter clothes for an adult female convict were valued at 55 cash, and for non-adult, 44 cash (see Table 6.1).[72] At these prices, twenty-six adults could be dressed for 1,430 cash, and two non-adults, for 88 cash, to the total of 1,518 cash, as in the Liye document.[73] Another text from the Qianling archive records the purchase of summer clothing for unspecified number of convicts for 2,244 cash.[74] It is hardly coincidental that this number is the multiple of the official valuations for convict summer clothes, 44 cash for non-adult male convicts and 55 cash for adult male convicts.[75]

Table 6.1: Official valuation of convict clothing

Category of convict laborers	Winter clothing	Summer clothing
Adult male convicts	110 cash	55 cash
Adult female convicts	55 cash	44 cash
Non-adult male convicts	77 cash	44 cash
Non-adult female convicts	44 cash	33 cash

As mentioned in the previous section, there is no evidence for the application of fair-market prices in the state purchases in either the Warring States or imperial Qin. The Qianling evidence suggests such purchases were still informed by the statute valuations that were probably uniform throughout the empire and did not change often. One can only wonder if such

[72] *Shuihudi*, 42, slips 94-96; Hulsewé, *Remnants*, 56.

[73] As observed in Liye Qin jiandu jiaoshi xiaozu, "*Liye Qin jian (er)* jiaodu (yi)," accessed February 14, 2019.

[74] *Liye Qin jiandu*, vol. 2, 380, tablet 9-1872.

[75] Accordingly, the amount could be used to purchase summer clothing for 51 non-adult convicts or for 40 adults and one non-adult. Other combinations are also possible.

price rigidity hindered procurement, and if so, by how much. Prices mentioned in another Qianling document dealing with clothing purchases varied slightly from the statute prices, so a set of clothing for a female convict cost 40 or 48 cash instead of 44.[76] Interestingly, the average price in this case was lower than the officially prescribed one, so the latter might have served as price-cap.[77]

The government was almost certainly the largest purchaser of textiles in the region. The sheer volume and stability of state demand should have attracted wholesale dealers in spite of relatively inelastic price policy. Another Qianling document sheds some light on the scale of the official purchases of textiles:[78]

> 敢言之：前日言當為徒隸買衣及予吏益僕，用錢八萬，毋見錢，府報曰取臧錢臨沅五
>
> Dare to report this: As previously reported, it is required to purchase clothing for dependent laborers and to provide more servants for the officials. [To do so], 80,000 cash should be used. The money is not available. Response by the [commandery] court stated[79]: Receive the cash from reserves at Linyuan, five…

[76] *Liye Qin jiandu*, vol. 2, 144, tablet 9-495+9-498.

[77] A similar argument has been made for the statute regulation of the size of convict food rations, see Lee Kim, "Discrepancy between Laws and Their Implementation: An Analysis of Granaries, Statutes, and Rations during China's Qin and Han Periods," *Journal of the Economic and Social History of the Orient* 59 (2016): 555-589.

[78] *Liye Qin jiandu*, vol. 1, 20-21, tablet 6-7; 179, 8-560. The document was reconstructed from these two fragments in He Youzu, "Du Liye Qin jian zhaji (si)" 讀里耶秦簡札記（五） [Miscellaneous reading notes on the Liye documents, part 5], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2273, accessed February 15, 2019.

[79] *Fu* 府 could refer to both county and commandery court. In the present case, the latter seems more likely, considering that the document addressed the issue of cash distribution between the two counties, Qianling and Linyuan, a matter that probably had to be resolved by commandery authority.

This text touches upon a number of important issues, some of which have already been addressed in the previous chapters. That the document was excavated as part of Qianling County archive suggests the request for cash originated in this county. Linyuan is known to have been the headquarters of the Dongting Governor for some time (see Chapter 3), which may explain why cash reserves were stored there. Since this county was located in the lower reaches of the Yuan River (see Map 3.5), the shipments of cash into and out of the commandery should have been passing through Linyuan, and it could have served as a sort of distribution center. As already mentioned, it was also probably the location of a market for clothing and possibly also for other goods and materials. The term "reserved cash" (*cang qian* 臧/藏錢) is otherwise unattested in the official Qin documents, but it appears in the transmitted texts, where it indicates official cash reserves.[80] The document, therefore, appears to illustrate the problem of insufficient monetary liquidity available to the local government, which was discussed in Chapter 2. In order to carry out routine purchases of clothing for the convicts, Qianling authorities had to apply for commandery subsidies.

It is possible to estimate the volume of state procurement implied by the document. Insofar as officials' servants are known to have been enlisted from the number of convicts and were not paid for their services (see Chapter 4), the mentioned amount was probably exclusively earmarked for the purchase of clothing. Provided the official pricing was applied (see Table 6.1), 80,000 cash was sufficient to buy a set of winter and summer clothing for some 485 adult male convicts or a considerably larger number of non-adult males and/or adult and non-adult females. This number is higher than the estimated convict population of 200-300 persons in

[80] See, for example, *Hanshu*, 24B.1159: "As the result (of excessive military expenditure under Emperor Wu), cash reserves prepared by the Imperial Treasury were used up, [revenues from] various taxes were fully exhausted, but this was not enough to reward the warriors" 於是大司農陳臧錢經用，賦稅既竭，不足以奉戰士.

Qianling (see Chapter 4). It cannot be ruled out that clothing was also bought for the military servicemen stationed in the county, or that this purchase coincided with the period of extraordinary concentration of convicts in the south around 216 BCE (see Charts 2.3 and 3.1). The surviving fragment does not bear the date when the document was drafted.

Based on the price evidence in the Qianling archive, this amount could purchase 80,000 liters of husked millet, equivalent to 2,000 monthly grain rations for adult male laborers.[81] It could also be used to purchase some 18 adult male slaves. While these numbers by themselves may not be telling much about the relative scale of the purchase, 80,000 cash are by far the largest outlay and the second largest cash amount recorded in the Liye documents, suggesting this qualified as a substantial transaction by local standards.

Textile and clothing purchases were necessitated by the insufficient output of the state-managed workshops that could not satisfy the needs of the local governments. The scale of shortfalls is illustrated by a document that records the volumes of textile products available at the Qianling County as well as the amount of deficit. The correlation for the three major types of textile products is summarized in the following table.[82]

Table 6.2: Availability of textile products in Qianling County

Textile products	Locally available	Shortfall
Plain silk	325.3 *zhang* = 751.5m	338 *zhang* = 780.8m
Plain hemp cloth	403.7 *zhang* = 932.5m	411 *zhang* = 949.4m

[81] For rations, see *Shuihudi*, 33-34, slips 55-56; Hulsewé, *Remnants*, 32-33. For a discussion of practical application of these norms as reflected in the Qianling archival records, see Miyake, "Seifuku kara senryō tōchi he," 58-62.

[82] *Liye Qin jiandu*, vol. 2, 463-464, tablet 9-2291.

Hemp	36 *shi* 24 *jin* 2 *liang* = 1,077.2kg	155 *shi* = 4,612.8kg

While the data in Table 6.2 helps to explain the frequent mentions of textile purchases by the Qianling government, neither of the Qin documents published so far allows establishing the sellers identity. The fact that the local Qin authorities were collecting tribute in silk worm cocoons (see Chapter 2) implies that Qianling residents were producing silk fabric, yet the output is unknown. Considering the tiny size of the local population and the fact that at least some purchases were conducted in Linyuan, outside of Qianling County and close to the major transportation routes to the north of Dongting Commandery, one is inclined to assume that the import of clothing, which was probably managed by private merchants operating on sufficiently large scale.[83] Later in this chapter, we will encounter such entrepreneurs.

So far as the published part of the Qianling archive allows us to judge, textiles were the main item in state procurement through private markets, but it was not the sole one. Another commodity that Qianling government required in large volumes were bird feathers used in the local production of arrows and exported by the county in payment of imperial tribute. The records of feather purchases are usually quite terse and do not usually provide the identity of sellers.[84] Yet one partially preserved document seems to indicate that officials were purchasing feathers from many local individuals rather than from wholesalers:[85]

[83] Robin D.S. Yates points out that some cloth might have been acquired from the tribal populations in the mountains surrounding the You River valley (Yates, personal communication). We cannot rule out the possibility of such trade, although the Liye documents published so far indicate rather hostile relations between the Qin administration of Qianling County and the indigenous people (see Chapter 3).

[84] See, for example, *Liye Qin jiandu*, vol. 1, 387, tablet 8-1755; 355, tablet 8-1549; 374, tablet 8-1662; vol. 2, 476-477, tablet 9-2342.

[85] *Liye Qin jiandu*, vol. 2, 292, tablet 9-1339.

買白翰羽口少內
癮等六十所

Purchased white pheasant feathers [on behalf of] the County Treasury
From Ying and others, [altogether] sixty persons

While the identity of Ying and other feather sellers is unclear, their number is impressive by Qianling measures. If they were mostly the local residents, the government network of feather procurement could have involved a substantial part of the county population.

Another frequently mentioned "merchandize" purchased by the county government were slaves that, as I argued in Chapter 4, were integrated into the convict labor force (*tuli* 徒隸).[86] Terminologically they were undifferentiated from convict laborers. After having been purchased by the state, they were integrated into the dependent labor force (see Chapter 4). The origins of these individuals are never specified, so it is unclear if they were convicts previously sold by the government to private owners and then bought back again, or privately enslaved individuals. In the later periods of Chinese history, frontier regions were known as burgeoning slave markets that largely transacted in indigenous slaves but also in persons kidnapped from the interior regions of the empire.[87] The property lists discussed earlier in this chapter point at the high availability of slaves in the Qianling area. Private slaves (*nubi* 奴婢) are listed among the major population categories in Qianling County.[88] The state-sponsored system of dependent

[86] *Liye Qin jiandu*, vol. 1, 93-94, tablet 8-154; 197, tablet 8-664+8-1053+8-2167; 306-307, tablet 8-1287.

[87] See, for example, Wilbur, *Slavery in China during the Former Han Dynasty*, 92-96.

[88] *Liye Qin jiandu*, vol. 1, 142, tablet 8-389+8-404.

labor fed into the local slave market to contribute to the formation of a specific frontier society with extremely high proportion of unfree population.

Fragmentary and only partly published as it is, the Qianling County evidence does not allow to satisfactorily reconstruct the scope and functioning of state procurement through private markets. Some items purchased by the government officials are mentioned only once, and it is impossible to conclude if such purchases were isolated episodes or indication of yet another private market that the state was tapping into and making use of.[89] The instances of state procurement through markets discussed in this section point at the important role of government purchases in the local economy. Some markets, such as that for feathers, may have been largely created by the state demand, which also stimulated the transaction volume and geographic extension of marketing networks in the markets for textiles and slaves.

2.4. Sale of goods by the government

As discussed in Chapter 2, the sale of government-owned commodities to private individuals already became part and parcel of economic activity of the local authorities in the state of Qin in the late Warring States era. The importance of such transactions probably increased during the imperial period, as suggested by the market-oriented innovations in official pricing. The imperial Qin statute quoted earlier in this chapter suggests that foodstuffs had pride of place among the goods and materials sold by the government. This impression is confirmed by the Qianling archival records that document many episodes of sale of various edibles by the local officials to

[89] Two documents, for example, mentions the purchase of horses by the Qianling office of the Controller of Works, see *Liye Qin jiandu*, vol. 2, 91-92, tablet 9-228; 163, tablet 9-609. Horse trade also appears in other fragments (see *Liye Qin jiandu*, vol. 2, 515, tablet 9-2677), and it is known that Qianling had some government-managed horse farms (see, for example, *Liye Qin jiandu*, vol. 1, 168, tablet 8-490+8-501). Was horse and, by extension, livestock market important in the local economy?

private individuals. As a rule, such records included the name of the product, the identities of the selling office, the purchaser, and the official who supervised the transaction, and the price, as in the following example:[90]

> 卅五年六月戊午朔已巳，庫建、佐般出賣祠窨餘徹脯一朐于□□□所，取錢一。令史歡監。般手。
>
> In the thirty-fifth year [of the First Emperor], in the sixth month, *wu-wu* being the first day of the month, on the day *ji-si* (July 25, 212 BCE), Jian, [the Supervisor of] the Arsenal, and [his] assistant Ban sold off leftovers from the sacrifices to the underground storage building, one roll of dried meat, to…[91] Received one coin.
> Supervised by the county scribe Zu. Drafted by Ban.

This text belongs to a series of documents recording the sale of leftover foodstuffs after the official sacrifices. Another such series is dated from May 9, 215 BCE, when Qianling officials were selling leftovers after sacrifices to another deity, Xiannong 先農 ("the First Farmer").[92] These were small-ticket sales usually amounting to several cash, but sometimes reaching several dozen cash.[93] Purchasers were as a rule convicts whose food rations consisted of grains and for whom such sales presented rare opportunities to complement diet with some proteins: most of the sold leftovers were meats or meat products, such as meat sauces (*rou zhi*

[90] *Liye Qin jiandu*, vol. 1, 269, tablet 8-1055+8-1579.

[91] For a discussion of the deity mentioned in this record, see Sanft, "Paleographic Evidence," 344-346.

[92] These documents have been published in Zhang Chunlong, "Liye Qin jian si Xiannong, si yin he si ti jiaoquan" 里耶秦簡祠先農、祠窨和祠隄校券 [Control tallies recording sacrifices to the First Farmer, underground storage building, and embankment in the Liye Qin documents], *Jianbo* 2 (2007): 393-396. These documents are partly translated and discussed in Sanft, "Paleographic Evidence," 335-340.

[93] See, for example, *Liye Qin jiandu*, vol. 2, 161, tablet 9-597.

肉汁).[94] Liquor (*jiu* 酒) leftovers offered another welcomed diversification of the convict ration.[95]

Foodstuffs sold by the Qianling government included some more exotic items:[96]

> 卅五年十月壬辰朔乙酉，少内守履出黔首所得虎肉二斗賣于更戍士五（伍）城父□里 I 陽所，取錢【卌】。衛（率）之，斗廿錢。　令史就視平。雔手。
>
> In the thirty-fifth year [of the First Emperor], in the tenth month, *ren-chen* being the first day of the month, on the day *yi-you*, Fu, the [Supervisor] of County Treasury, issued the meat of a tiger caught by the black-headed ones (common people), 2 *dou* (approx. 4kg), [which was] sold to Yang, a rank-and-file (commoner) from … village of Chengfu County,[97] a frontier soldier serving his shift of duty. Received [40] cash. Calculated, 20 cash per *dou*. Jiu, the county scribe, oversaw the fairness [of the transaction] (or: oversaw that the fair-market price was observed). Drafted by Tui.

Qianling authorities awarded local residents for capturing tigers (see Chapter 3). They also did their best to make a tiger hunt a profitable enterprise for the government by selling meat at market. The tiger meat was a more expensive foodstuff that sacrificial leftovers. In the above-quoted document, the purchaser was a frontier soldier temporarily stationed in Qianling (*geng shu* 更戍, "frontier soldier serving in shifts of duty"). In terms of legal status, he was superior to the convicts who constituted the clientele of leftover sales. Yet, another record indicates some convicts, too, could afford to buy tiger meat.[98]

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[94] See Zhang Chunlong, "Liye Qin jian si Xiannong, si yin he si ti jiaoquan," 394.

[95] See, for example, *Liye Qin jiandu*, vol. 1, 246-247, tablet 8-907+8-923+8-1422.

[96] *Liye Qin jiandu*, vol. 2, 57, tablet 9-56+9-1209+9-1245+9-1928+9-1973.

[97] Chengfu 城父 County was located in Sishui 泗水 Commandery in present-day Anhui Province, see Map 2.3 and *Zhongguo lishi dituji*, vol. 2, 7-8. The Chengfu recruits were systematically directed to serve as frontier guards in Qianling County.

[98] *Liye Qin jiandu*, vol. 2, 84, tablet 9-186+9-1215+9-1295+9-1999.

The value of some sales considerably exceeded the examples quoted so far. One fragmentary document records the receipt of 200 cash by a certain office in Qianling County. The part of the text that specified the seller office, purchaser, and the item sold is not preserved, but the wording of the document suggests the buyer was a private individual.[99] Another partly preserved document records the sale of five pieces of plain hemp cloth (*bai bu* 白布), a textile curtain (*wei* 帷), and cords (*jiu* 糾) to a certain Ping 平, also most likely a private buyer.[100] Finally, archaeologists excavated what appears to be a "shopping list" that includes various items such as shoes (*lü* 履), dried meat (*fu* 脯), and fish (*yu* 魚), some of which were purchased from Scribe Xin 史信. The text on the back side of the tablet mentions three amounts, 341, 1152, and 340 cash, but it is unclear if these amounts refer to the items listed on the front side.[101] It is equally unclear if Xin was acting in his private or official capacity.[102]

The Qianling documents offer a rather piecemeal picture of the government's participation in private markets as a seller. Most of the recorded transactions were small-ticket sales of foodstuffs. This suggests that the local government offices were using private markets to dispose of excessive supplies rather than deliberately producing for the market. With its privileged if not exclusive access to husbandry products of state-managed farms and some

[99] *Liye Qin jiandu*, vol. 2, 284, tablet 9-1271. In this text, the record of the amount received (*qu qian* 取錢) is preceded by the graph *suo* 所, which in the two documents translated in this section follows the description of the private purchaser. This suggests that in the case of the document on tablet 9-1271, purchaser was most likely a private individual.

[100] *Liye Qin jiandu*, vol. 2, 72, tablet 9-126.

[101] *Liye Qin jiandu*, vol. 2, 312, tablet 9-1447.

[102] An individual with the same name is mentioned in another Liye document dated from 213 BCE as an assistant to the Magistrate of Qianling County (*lingzuo* 令佐), see *Liye Qin jiandu*, vol. 1, 108-109, tablet 8-197. He might have been later promoted to the position of County Scribe (*lingshi* 令史).

important sources of wild game meat, the local government should have been an important supplier of protein foods. One should bear in mind that market sales represented only a portion of farm products that the government was putting into circulation. The early Western Han "Statute on bestowals" (*ci lü* 賜律) lists grain, meat, liquors, and fermented sauce among the state-distributed goods, entitlement to which was defined by individual's social rank and official position rather than his or her purchasing power.[103] This practice was inherited from the Qin.[104]

The sizeable market for textiles, which has been discussed in the previous section, provided the Qianling officials with a possibility not only to purchase clothing for government personnel and state-dependent laborers under thei jurisdiction but also to sell textiles, probably the produce of the local state-managed workshops. That the state purchased textiles at the same time as it was selling them points at the divergence between production and consumption in the state economy (probably as the result of inadequate planning), which rendered markets crucial for its functioning.

2.5. Local government and labor market

The impact of the forced labor system on the development of the labor market in the early Chinese empires has been discussed in Chapter 4. Hiring out convicts to private employers was legalized in the late Warring States and imperial Qin. Commercialization of convict labor provided

[103] *Ernian lüling yu Zouyanshu*, 207-214, slips 282-304; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 762-782.

[104] Although no Qin "Statute on bestowals" is known so far, legal texts from the Yuelu Academy collection of Qin documents mention bestowals (*ci* 賜) of liquor, clothing, cash, and other goods by the local government, see *Yuelu shuyuan cang Qin jian*, vol. 4, 209, slips 344-345; vol. 5, 207-208, slips 327-330.

local governments the opportunity to monetize the labor resources of the state economy, but it also opened the floodgates for privatization of incomes by unscrupulous officials. The Qianling documents contain many, mostly fragmentary, records of hired labor (*yong* 庸/傭), some of which are distinctly associated with the government.[105]

One fragment, which is dated from 212 BCE, mentions the "The list of privately employed (?) hired laborers" (*ren yong zuo zhi* 人庸作志).[106] Unfortunately the larger part of the document did not survive, so it is difficult to infer the status of the laborers and their employer, let alone the type of work they were hired to do. That the officials were concerned with drafting the list suggests these laborers were somehow affiliated with the government, likely being the convicts hired to private users. Decisions about hiring out unfree laborers were probably made by the offices that employed them, as suggested by the following document:[107]

> ☐尉敬養興爲庸，約日三斗米，乙酉初作□☐
>
> … Cook Xing [at the service of the County] Commandant Jing is hired out.[108] It is agreed [that he receives] three *dou* (approx. 6 liters) of husked grain per day and starts working on the day *yi-you*…

[105] For the use of the word *yong* 庸/傭 for hired labor in the Qin and Han documents, see Ma Zengrong, "Qin Han shiqi de guyong huodong yu renkou liudong".

[106] *Liye Qin jiandu*, vol. 1, 252-253, tablet 8-949.

[107] The document is reconstructed from fragments 8-2205 and 8-2212 in He Youzu, "Liye Qin jiandu zhuihe (san)" 里耶秦簡牘綴合（三） [Reconstruction of the Qin documents from Liye, part 3], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=1697, accessed February 19, 2019.

[108] Commandant Jing 敬 is otherwise known from the Liye documents, see Shan Yinfei 單印飛, "*Liye Qin jiandu jiaoshi (diyi juan)* renming tongji biao" 《里耶秦簡牘校釋（第一卷）》人名統計表 [Table of individual names in

The volume of grain received by Xing considerably exceeded the legally established daily grain ration (2/3 *dou* for an adult man, increased to 5/6 *dou* when performing hard labor) and should be considered a compensation for his work. This seems to be a departure from the late Warring States legal rule that prescribed leasing out convicts to private employers who agreed to provide them clothing and subsistence food rations.[109] Development of the labor market and the realization of market value of convict labor by the government officials may explain this change. It is unclear if the emolument was fully claimed by the official or shared with the laborer. In any event, these documents corroborate the conclusion that during the Qin imperial period, local governments were important suppliers in the private labor market.

The Qianling authorities also appear to have played a role in regulating the labor market by providing a degree of legal protection to its participants. A number of fragmentary legal case records from Liye deal with the hired labor, as in the following example:[110]

⿹誠嘗取寄爲庸⿹

…In truth, previously employed Ji as a hired laborer…

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the first volume of the *Liye Qin jiandu jiaoshi*], in Yang Zhenhong and Wu Wenling, eds., *Jianbo yanjiu 2014* (Guilin: Guangxi shifan daxue, 2014), 59-117.

[109] *Shuihudi*, 32, slip 48; Hulsewé, *Remnants*, 30-31.

[110] The document is reconstructed from fragments 8-1849 and 8-1322 in He Youzu, "Liye Qin jiandu zhuihe (si)" 里耶秦簡牘綴合（四） [Reconstruction of the Qin documents from Liye, part 4], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=1700, accessed February 19, 2019.

As noticed by some scholars, the word *cheng* 誠 ("truth; in truth; truly") was used in the records of legal testimony to reflect the speaker's conviction of the truthfulness of his or her attestation.[111] Fragment of two other documents record interrogating officials requesting suspects to explain why they hired or were hired as a laborer.[112] The formulaic phrase "how do you explain this?" (*he jie* 何解) unambiguously indicates that these small fragments originally belonged to legal case records.[113] Yet another fragmentary document appears to be dealing with the situation when a person subject to conscription as a frontier serviceman (*shu* 戍) hired himself out as a transportation laborer (*jiu* 就/僦) and as the result could not be found at the time when the mobilization order arrived. He was consequently sentenced to a hard labor penalty.[114]

The fragmentary evidence from Liye does not allow a reconstruction of the regulation of hired labor in the empire but it suggests that the private labor market was already within the purview of Qin officials. Security and public order might have been among the concerns. Throughout the early imperial period, authorities treated hired laborers with suspicion, especially those who were employed outside of their home areas.[115] A legal case dated 241 BCE explicitly states that the "persons from other counties who had come as migrant wage laborers…

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[111] He Youzu, "Liye Qin jiandu zhuihe (si)," accessed February 19, 2019. He Youzu draws parallel to the word-use in the case record no. 5 from the early Western Han collection of legal case records from Zhangjiashan, see *Ernian lüling yu Zouyanshu*, 343, slips 37-40; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1218-1219.

[112] *Liye Qin jiandu*, vol. 1, 39, tablet 8-43; vol. 2, 238, tablet 9-989.

[113] See, for example, *Ernian lüling yu Zouyanshu*, 332, slip 5; 337, slip 12; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1175, 1189; Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 42; 163-164, n. 800.

[114] *Liye Qin jiandu*, vol. 2, 305-306, tabley 9-1420+9-1421.

[115] For a recent discussion, see Ma Zengrong, "Qin Han shiqi de guyong huodong yu renkou liudong".

might be suspected of being robbers and assailants."[116] Wage laborers loom large among the culprits in the Qin collection of exemplary criminal cases stored by the Yuelu Academy. In particular, the labor market offered income to absconders, runaway convicts and slaves, and other groups that overtly challenged the legal order.[117]

3. Private commerce in Qianling County

The majority of commercial transactions recorded in the Liye documents involved the government as either seller or purchaser. Although the imperial Qin statute requested that some commercial transactions between private individuals be declared to the local authorities, this regulation applied to a limited range of situations when relatively high-value movable items such as cattle, horses, and slaves were sold across county borders or at the official county market.[118] While it is likely that such transactions were officially recorded, no such record has so far been published as part of the Liye materials that provide surprisingly little evidence for private commerce. It may be symptomatic that the available references occur in two contexts: first, legal records that did not have to do with commercial enterprises per se; and, second, in private letters.

The documents in the former group use two terms to refer to private traders: "men of the marketplace" (*shi ren* 市人)[119] and "merchants" (*gu ren* 賈人).[120] The former were probably renting stalls in the official marketplace at the county town, as suggested by the requirement in the

[116] *Ernian lüling yu Zouyanshu*, 377, slip 206; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 1401.

[117] See, for example, *Yuelu shuyuan cang Qin jian*, vol. 3, 179-184, slips 142-149; Lau and Staack, *Legal Practice in the Formative Stages of the Chinese Empire*, 218-227.

[118] *Yuelu shuyuan cang Qin jian*, vol. 4, 133-134, slips 198-201.

[119] *Liye Qin jiandu*, vol. 1, 22-23, tablet 6-14.

[120] *Liye Qin jiandu*, vol. 1, 161, tablet 8-466.

early Western Han "Statute on labor services" (*yao lü*) that the market walls, roads, and bridges be repaired by the "men of the marketplace who are not respectful" (*shi ren bu jing zhe* 市人不敬者).[121] "Merchants" (*gu ren*) appear in the *Shiji* account of the Qin campaign in the South in 214 BCE when they were mobilized along with other underprivileged social groups.[122] One Qianling document indicates that merchants were legally segregated from other statuses, and marriage of an outsider into a merchant's family was penalized by four years of penal frontier service.[123]

Personal letters are our main source of information about the private commercial enterprise in Qianling.[124] Most of these texts are very fragmentary, and it is still unclear how and why they found their way into the official archive, if they did. Alternatively, they could have been deposited into the well separately from the archival documents. In spite of the generally poor state of preservation, some of these texts were clearly dealing with commercial issues. One relatively well-preserved letter was probably a part of a business communication concerning salt trade:[125]

> 應多問華：得毋爲事繇。華爲應問，適以前日所分養錢者以寄遺應，即酉陽徒道（正）

[121] *Ernian lüling yu Zouyanshu*, 248, slip 414; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 903.

[122] *Shiji*, 6.253.

[123] *Liye Qin jiandu*, vol. 1, 161, tablet 8-466.

[124] For an introduction to the private letters in the Liye archive, see Lü Jing 呂靜, "Liye Qin jian suojian siren shuxin zhi kaocha" 里耶秦簡所見私人書信之考察 [A study of private letters among the Qin documents from Liye], *Jianbo* 15 (2017): 55-76.

[125] *Liye Qin jiandu*, vol. 1, 191, tablet 8-650+8-1462. Original transcription was improved in He Youzu, "Du Liye Qin jian zhaji (si)" 讀里耶秦簡札記（二） [Miscellaneous reading notes on the Liye documents, part 2], Bamboo and Silk Manuscripts Web, Wuhan University, http://www.bsm.org.cn/show_article.php?id=2265, accessed February 25, 2019. The text and its possible translations were discussed at the Early China reading group at the Institute of Chinese Studies, Heidelberg University, on April 2, 2019. The present punctuated version of the Chinese text and the English translation are partly based on this discussion. I would like to thank Enno Giele, Thies Staack, Chun Fung Tong, and Jannika Newen who participated in the group meeting and offered their interpretations of the document.

涪陵來以買（賣）鹽，急。卻即道下，以券與卻，靡千錢。除少內書，卻道下操養錢來視華。購而出之。（背）

Front side
Ying inquires if Hua is not troubled by his duties.[126] [In response to] Hua's question to Ying, it is advisable that previously distributed "food money" is used to dispatch Ying [so that he] proceeds to Youyang on foot from

Back side
Fuling [in order] to sell the salt. [It is] urgent. Que [should] proceed down the [same] road, and [Ying] divide the [contract] tally to share with Que [to testify to the] division of one thousand cash [between them]. [After?] the document about the appointment of the Supervisor of [County] Treasury [is issued], Que will proceed down the road with the "food money" to come and see Hua. Reward him and let him go.

The formulaic phrase expressing concern about correspondent's wellbeing (*de wu wei shi luan* 得毋爲事縿) is also known from other private letters excavated at Liye.[127] It was part of Qin epistolary language and allows to confidently classify the present text as a private letter. There is much less certainty regarding its context. It has been noticed that a person named Hua 華 served as a Supervisor of the County Treasury at Qianling, the office that is also mentioned in the present text. Might it be that Hua was informing his private correspondent about his recent or forthcoming appointment?[128]

The meaning of the "food money" (*yang qian* 養錢) is also unclear. The term is otherwise unattested in the Qianling documents published so far. It occurs in the transmitted Han texts within the compound "private funds [used to buy] food" (*si yang qian* 私養錢).[129] Traditional

[126] I adopt Giele's translation of the formulaic phrase 得毋爲事縿, see Giele, "Private Letter Manuscripts," 466.

[127] See, for example, *Liye Qin jiandu*, vol. 1, 194-195, tablet 8-659+8-2088; 233, tablet 8-823+8-1997.

[128] For this supposition, see *Liye Qin jiandu*, vol. 1, 191, tablet 8-650+8-1462, n. 4.

[129] See, for example, *Shiji*, 102.2758.

commentaries alternatively interpreted this term as either private money used by officials to buy food to complement their rations or as money they received from the government.[130] It is therefore unclear if Hua and Ying were using their own money or some sort of public funds in order to carry out their trade. What seems to be more certain is that the document is dealing with a private commercial enterprise, even if one or more parties served as officials and/or made use of money they received as emolument.

The salt trade centered on the production areas in the Three Gorges, where Fuling 涪陵 County mentioned in the text was located, had long-standing traditions in the Middle Yangzi region.[131] The document implies a rather small-scale itinerant trade along an overland route connecting the You River valley to the Three Gorges.[132] Official salt supplies for the Qin garrisons in the Yuan River basin were probably shipped by water.

A document dated from 221 BCE contains another possible reference to a private commercial enterprise. It mentions a certain Lang who lent a government-owned boat to travel across the recently conquered Chu lands and collect pottery tiles (*ji wa* 積瓦).[133] He eventually failed to return the boat on time, which led to an official inquiry into his whereabouts. Since the document is primarily concerned with retrieving the boat, very little is said about the nature of Lang's enterprise, so it is even unclear whether it was a private commerce or if he was acting on behalf of the government.

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[130] *Shiji*, 102.2760, comm. 16.

[131] For a study of salt production in the Three Gorges in the second and first millennia BCE, see Flad, *Salt Production and Social Hierarchy in Ancient China*.

[132] For this observation, see You Yifei, "Liye Qin jian suojian de Dongting jun," accessed February 27, 2019.

[133] *Liye Qin jiandu*, vol. 1, 72-76, tablet 8-135.

A fragmentary private letter refers to another type of commercial activity pursued by private merchants, manipulations with coinage:[134]

臣昧死言：臣竊聞黔首擇錢甚，而縣☐
問其故，賈人買惡錢以易縣官☐

I dare to inform you: I heard that the common people are very much involved in selecting coins, and the government…
…inquired into the causes. The merchants are buying up the bad coin and exchanging it at the county government offices…

The practice of circulating official coinage selectively, or "selecting coins" (*ze qian* 擇錢) and refusing to accept the coins of inferior quality, was penalized by Qin and Han law.[135] The present evidence suggests some private merchants were making a profit from this illegal practice by buying up the "bad coins" (*e qian* 惡錢) and handing them in to the local authorities, presumably in payment of taxes or fees or purchasing goods from the government. One may assume that coins of inferior quality were exchanged at a discount in the private market but accepted at their face value by the officials. That merchants engaged in such illegal but profitable business helps to explain the imperial government's suspicion toward this group and legal measures against them. The document also suggests that private markets paid more attention to the metallic content of coins than the government would like them to. The next section considers the monetary economy at the Qin imperial frontier in more detail.

[134] *Liye Qin jiandu*, vol. 2, 397, tablet 9-1942+9-2299.

[135] See *Shuihudi*, 36-37, slip 68; Hulsewé, *Remnants*, 53; *Ernian lüling yu Zouyanshu*, 168, slips 197-198; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 633.

4. Money and monetization at the frontier

Numerous mentions of monetary transactions and coin in the Qianling archival documents attest to a considerable monetization of the Qin economy at the end of the Warring States and during the imperial period. The majority of the records have to do with the government payments and transfers of cash from one office to another. The largest amount mentioned in the Liye texts is 97,000+ coins, most likely issued by a certain government agency.[136] The next largest amount, 80,000 coins, appears in the report on the purchase of clothing for convicts, which has been discussed earlier in this chapter. The largest amount of money in private possession is 60,000 cash belonging to a resident of the county town.[137] However, this latter record is somewhat ambiguous since the monetary amount might have been a valuation of property rather than the physical cash owned by an individual.

The vast majority of cash amounts mentioned in the Qianling documents are considerably smaller, typically in thousands, hundreds, or tens of cash. Smaller transactions such as the sale of leftover foodstuffs after official sacrifices often involved as little as one cash. In some cases, the value of goods or services is denominated in money while the actual transaction involved in-kind payments.[138] One should therefore exercise some caution in treating the relatively large volume of references to money in the Liye texts as evidence for monetization of economic exchange.

The available evidence suggests that the influx of cash through state purchases was key to the monetization of the local economy. One document mentions a special fund allocated for

[136] *Liye Qin jiandu*, vol. 2, 134, tablet 9-469. The very poor preservation conditions of this document prevent further reconstruction of the transaction background.

[137] *Liye Qin jiandu*, vol. 1, 356-357, tablet 8-1554.

[138] See, for example, the judicial case concerning illegal hiring of state-dependent laborers in *Liye Qin jiandu*, vol. 1, 385-386, tablet 8-1743+8-2015, which was discussed in Chapter 3.

government purchases, "the moneys used by the county government offices to make purchases" (*xian guan you mai yong qian* 縣官有買用錢). The record is followed by the graphs *zhu duan* 鑄段（鍛） ("casting/minting and forging"), which may suggest the local production of coins.[139] While some purchases involved very large volumes of goods that might have been imported from outside of Qianling County if not Dongting Commandery, in other cases amounts were relatively modest, suggesting a more local nature of transactions.

Money was also issued by the government in rewards, as in the following record:[140]

> 囗沈出錢千一百五十二購隸臣于捕戍卒不從囗
> 囗 令史華監。
>
> …Shen issued 1,152 cash in reward to *lichen* Yu for arresting a frontier soldier who did not follow…
> …county scribe Hua overviewed [the payment].

Three more cases of official rewards to individuals arresting and denouncing criminals are recorded in the Qianling archival documents and involved the amounts of 350, 1152, and 576 cash.[141] 1,152 cash appear to have been a reward for arresting a criminal sentenced for a crime warranting the punishment of *shu nai* 贖耐 ("redemption payment for shaving the whiskers").[142] Half that amount, 576 cash, was probably awarded for arresting criminals guilty of lighter offenses. This scale of rewards was publicized by the Qin government to encourage popular participation in

[139] *Liye Qin jiandu*, vol. 1, 152-153, tablet 8-454.

[140] *Liye Qin jiandu*, vol. 1, 258, tablet 8-992.

[141] *Liye Qin jiandu*, vol. 1, 231, tablet 8-811+8-1572; 261, tablet 8-1008+8-1461+8-1532; 263, tablet 8-1018.

[142] For the list of crimes falling under this category under the early Western Han law, see Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, xci-xciii.

the administration of justice.[143] The Liye records suggest this policy not only enhanced the efficiency of law enforcement but also provided private individuals access to coined money.

Finally, payment of salaries and remunerations was another state-sponsored mechanism for pumping money into the local economy. However, it seems to have played a relatively minor role in Qianling County. One Liye document mentions the payment of 1,000 cash to a magistrate's assistant (*ling zuo* 令佐), but it is unclear if this was salary or some other form of remuneration, or a remittance to be used for some official purpose.[144] Another document records 160 cash issued in payment of a ration (*lin* 稟) in 212 BCE.[145] The practice of issuing rations in cash, not in kind, is otherwise unattested in the Qianling archive or other Qin documents, so this may have been an exceptional case. The part of the text that recorded the receiver of this ration money allowance is unfortunately not preserved.

Overall, in the Qianling archival record, government looms large as the money supplier in the local economy. State purchases appear to have been the major mechanism supplemented by monetary awards to private individuals and probably by partly monetized salaries and rations paid to the officials and servicemen. The latter, however, seems to have been a relatively marginal practice.

Although it is impossible to assess the impact of the influx of monetary liquidity on the local economy in quantitative terms, the available record suggests that residents of Qianling County were routinely using cash in transactions among themselves as well as with the government.

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[143] For a discussion of the Qin and Han practice of awarding private individuals for detaining or denouncing criminals, see Korolkov, "Calculating Crime and Punishment," 70-86.

[144] *Liye Qin jiandu*, vol. 1, 19-20, tablet 6-5.

[145] *Liye Qin jiandu*, vol. 1, 292, tablet 8-1214.

In the previous section, I discussed the salt merchants who carried 1,000 cash, which they apparently used to do their trade. Another private document records the sale of two *dou* (approx. 4 liters) of grain for 30 "fine cash" (*mei qian* 美錢).[146] Even hard-labor convicts possessed small amounts of cash to purchase sacrificial leftovers.

Qianling residents also used cash to pay some taxes and fines. As discussed in Chapter 2, some taxes originally collected in kind were fully or partly monetized during the Qin imperial period, such as the tax in hay and straw. One Qianling document records the collection of 1107 cash in payment of this tax.[147] Another fragment mentions the payment of 120+ cash in tax or rent (*zu* 租).[148] Although working off one's financial obligations to the government remained a common mechanism of settling debts in the Qin Empire (see Chapter 4), some debts and fines were paid in cash, as suggested by a number of documents from the Qianling archive.[149]

The mention of "fine" (*mei* 美) and "bad" (*e* 惡) cash in the private documents highlights the problem of the selective circulation of cash when private users placed higher value on quality coins and accepted damaged or worn coins at a discount. The Qin law militated against such practices and demanded that "when commoners in their deals use cash, fine and bad [pieces] are to be used together; one should not venture to differentiate between them."[150] That this legal regulation was reiterated and further specified in the early Western Han statutes suggests that

[146] *Liye Qin jiandu*, vol. 1, 223-224, tablet 8-771.

[147] *Liye Qin jiandu*, vol. 2, 152-153, tablet 9-543+9-570+9-835.

[148] *Liye Qin jiandu*, vol. 1, 288, tablet 8-1180.

[149] See *Liye Qin jiandu*, vol. 2, 70-71, tablet 9-119 for an official paying the fine of 776 cash; and *Liye Qin jiandu*, vol. 2, 64, tablet 9-86+9-2043 for the payment of a fine in cash by a widow resident in the Yang Ward of Qianling county town.

[150] *Shuihudi*, 35, slip 65; translation follows Hulsewé, *Remnants*, 52.

selective use of official cash continued throughout the formative period of the ancient empire.[151] This is partly explained by the relative instability of the imperial Qin and early Western Han coinage that was subject to considerable debasement starting in the reign of the Second Qin Emperor.[152] Moreover, the southern regions of the empire were used to the Chu monetary system, and some time had to pass before the northern coinage gained credit among the local users.

Archaeological evidence confirms that the arrival of Qin in the You River basin accelerated monetization of the local economy. While no Warring States Chu coins have so far been reported for the Liye site, by 2006 archaeologists discovered 191 Qin coins, and it is likely that the actual number of finds is considerably higher.[153] Although the Qin official finance still emphasized in-kind income and direct allocation of labor and resources by the government, by the time of the imperial unification coinage was already indispensable in state procurement, and large volumes of supplies were purchased in the market. Big ticket purchases probably involved imports from outside the area, but many coins brought by the Qin officials circulated within Qianling, making possible monetization of some local taxes, payment of fines in cash, and monetary transactions among private individuals. Although the Qin experienced setbacks in its quest for universal undifferentiated recognition of its legal tender,[154] local authorities in Qianling quoted the shortage

[151] *Ernian lüling yu Zouyanshu*, 168-169, slips 197-198; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 633.

[152] For the debasement of Qin coinage under the Second Emperor, see, for example, He Qinggu 何清谷, *Qinshi tansuo* 秦史探索 [*Studies in the Qin history*] (Taipei: Liantai, 2003), 318-324.

[153] For the Qin coins excavated at the Liye site, see *Liye fajue baogao*, 169-170. During my visits to Liye in 2011 and 2015, archaeologists who participated in the site excavation mentioned that many Qin coins were collected by local residents prior to the beginning of the official archaeological work. These coins were subsequently sold in the antiques market, and their number is now impossible to establish.

[154] For the continuing circulation of the currencies of the conquered states after the Qin imperial unification, see, for example, Kakinuma, *Chūgoku kodai no kahei*, 60-62.

of cash, not difficulties with putting it to circulation, as a major impediment to state procurement.[155]

5. Concluding remarks

As an official archive, the Qianling County documents are heavily focused on the government activities and provide relatively little evidence on the private economy. This is hardly surprising, considering that large groups of local residents passed barely noticed by the Qin administration. We know next to nothing about the economic, social, and cultural life of indigenous populations in the highlands surrounding the You River valley. Even the registered population – the Qin subjects proper – were entering the official written record primarily when assuming the roles of taxpayers and statute laborers or when transacting with the government offices.

We should not therefore take the scarce mentions of entrepreneurs or private trade as evidence for a lackluster economy outside the state sector. Both texts and archaeological finds point at the rapid monetization in this area in the wake of the Qin conquest. Money lubricated the state economy as government offices sold their stockpiles, purchased supplies, collected taxes and dues, and issued rewards, but the records of selective use of cash suggest that some coinage also circulated in private markets that applied valuation standards and circulation rules different from the official ones, something that the government could do relatively little about at that time.[156] If

[155] See, for example, *Liye Qin jiandu*, vol. 1, 172, tablet 8-517; 179, tablet 8-560.

[156] As well as in the latter periods of Chinese history. For an excellent study of the monetary economy of the late medieval period and imperial government's recurrent failure to dictate the value of coinage to private markets, see Von Glahn, *Fountain of Fortune: Money and Monetary Policy in China, 1000–1700* (Berkeley, Los Angeles, and London: University of California Press, 1996).

anything, the small number of mentions of private commerce in the Qianling documents points at the conservatism of the Qin fiscal system loyal to its Warring States physiocratic foundations.

Even so, important changes were taking place in the relations between the state and the private economy, particularly commerce and markets. The sale of land was most likely still considered illegal if not outright suppressed, but recognition of permanent, private titling for some categories of productive lands was paving the way to the expansion of the land market. Just twenty years after the fall of Qin, imperial law already recognized the sale and purchase of agricultural fields by private individuals.

The government also acknowledged and attempted regulating the previously banned or neglected modes of trade outside the official marketplaces that were probably for a long time important in the local private economy. The Qin authorities were motivated not so much by the wish to make the lives of their subjects easier as by the state's increased dependence on the markets and willingness to take whatever steps needed to widen its access to the markets. The produce of state-managed workshops often sold better at the impromptu roadside fairs than at the official marketplace inside the county town walls. The private sector that Legalist ideologists demonized as the major threat to the self-strengthening state became a vital resource for the state economy whose territorial expansion during the last decade of the Warring States period dramatically reduced the efficiency of centralized planning and redistribution.

We lack any quantitative data to assess the impact of the new market-oriented policies, official recognition of private land titles (limited as it might initially have been), or registration of property transfers on the transaction costs in the private economy.[157] However, these new

[157] Institutional economists and economic historians have long debated the role of state institutions, particularly the legal system, in reducing transaction costs in the economy. While scholars recognize the unique features of the state as an economic actor, e.g., in terms of the volume of transactions ("economy of scale") or ability to internalize the externalities of contract, to the effect of aggregate reduction in transaction costs by means of moderate increase in

developments do suggest that the Qin rulers tacitly acknowledged the failure of Shang Yang's ambitious project to establish an all-encompassing state economy. By the end of the Warring States period and especially after the proclamation of the empire in 221 BCE, their growing attention to private markets signaled the birth of a new approach to state finance that economic historian Richard von Glahn has characterized as "mercantilist."[158] It was also manifest in the increasing awareness of price fluctuations and early attempts to take them into account to ensure the government's efficiency as a market participant; and the expanding body of coinage regulation intended to consolidate the government's control over the medium of exchange.

The empire's engagement with the private economy went beyond provisioning security, maintaining property rights and legal framework for transactions, and tapping into the existing private markets. Students of the ancient economies have long emphasized the role of state demand for products and labor services in the formation of markets, in particular, long-distance interregional trade. Official taxation and tribute extraction provided stimulus for increase in production and intensified exploitation of resources that were shipped to the state-sponsored consumption centers (see Chapter 5).[159]

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each party's transaction costs, most of them also tend to agree that the state's willingness to supply such services depended on multiple political-economic configurations and characteristics of private demand for state intervention. This intervention was most efficient in the markets that directly concerned the core interests of the state such as securing the support of key constituencies and supplying the army. The vast majority of economic transactions continued to be regulated by private arrangements. For a general discussion of the role of the state in reducing transaction costs in the economy, see, for example, Dari-Mattiacci, "The Economic Perspective," 273-291. For alternative views about the impact of the Roman state on transaction costs in the ancient Mediterranean economy, see Andrew Wilson, Morris Silver, Peter Fibiger Bang, Paul Erdkamp, and Neville Morley, "A Forum on Trade," in Scheidel, ed., *The Cambridge Companion to the Roman Economy* (Cambridge: Cambridge University Press, 2012), 287-317.

[158] Von Glahn, *The Economic History of China*, 118.

[159] In his influential article, Keith Hopkins described the positive feedback loop of state extraction, increase of production output, and expansion of trade as a "tax-and-trade cycle", see Hopkins, "Taxes and Trade in the Roman Empire," 101-125. For a recent statement of the pivotal role of state and its "tax-based demand" in the economic growth and formation of markets in the ancient world, see Warburton, *The Fundamentals of Economics*, 1-44.

This chapter traced some of the market-making effects of imperial policies. Most vividly, the state demand for forced labor, transfer of convicts to the frontier, and the lack of an impenetrable dividing line between the state- and privately dependent laborers (see Chapter 4) contributed to the emergence of an unfree labor market where the government and private individuals acquired and disposed of unfree laborers. The importance of this market for the private economy is highlighted by the composition of household wealth in Qianling County. Present evidence is hardly sufficient to support the conclusion about some sort of "slave economy" in the frontier regions of the Qin Empire, but it illustrates linkage between empire-building and market-making under specific political, military, and economic circumstances. While the unfree labor system gradually declined after the fall of Qin, it was an important factor to invigorate market trade and monetary economy at the dawn of the imperial era.

The state demand for textiles to clothe the army of convicts and conscripted servicemen along with its quest for tribute goods also affected the formation and expansion of markets. The local government was almost certainly the largest buyer in the textile market. The scale of its demand often surpassed local productivity, leading to the need for imports. Unfortunately, we know next to nothing about the people and trading networks involved. Yet, one may speculate such transactions were key in projecting the impact of state demand beyond the immediate locations of official consumption.

Last but not least, imperial officials, often operating in their private capacity, actively engaged in commerce. Such behavior was discouraged or even overtly penalized by the government. In many cases it was difficult to draw a line between the legitimate effort to deploy state-owned resources in the optimal way, on the one hand, and private profit-making, on the other. Was an official simply fulfilling his duty when leasing out servants to private employers in order

to reduce maintenance costs for the treasury, or was he privatizing the incomes of the state economy by making convicts earn money, then pocketing some or all of it, as were the corrupt convict-managing officials mentioned at the end of Chapter 4? While their superiors investigated into the circumstances of some such cases that were accidentally brought to their attention, government functionaries with their higher-than-average level of literacy, understanding of the legal system and administrative institutions, access to the state infrastructure of communication, and network of influential connections played a role in the creation and expansion of private enterprise.

Chapter 7 : Conclusion

Explaining economic and social impacts of ancient empires has long been central to the work of historians, historically-minded economists, archaeologists, and political scientists. The question has duly been seen as key to understanding the successes, failures, and afterlives of imperial states. More recently, a number of "comparative imperiology" projects[1] addressed the ways in which various pre-modern empires engineered agricultural and human landscapes to project power and extract resources, and identified shared strategies independently adopted by various historical empires.[2] These similarities, as well as similarities in effects such strategies had on the underlying economies, societies, and cultures, can be explained by the very similar logistical and social challenges that the empires were facing.[3]

While the interest in the nexus between empire-building and socio-economic change is shared by many scholars, difference in perspectives and methodologies results in varying and sometimes conflicting interpretations. Legal and economic historians, particularly those subscribing to the new institutional economics analysis, emphasize empires' role in reducing

[1] To my knowledge, this term was first used in the title of Volume 22 (2010) of the Slavic-Eurasian Studies Series published by Slavic-Eurasian Research Center, Hokkaido University. See http://src-h.slav.hokudai.ac.jp/coe21/publish/no22_ses/contents.html, accessed July 24, 2019.

[2] Some of these comparative projects already led to collective monograph publications, most of which have already been mentioned in this work. Others are still in the early stages. See, for example, Alcock et al., eds, *Empires: Perspectives from Archaeology and History*; Scheidel, ed., *State Power in Ancient China and Rome*; Morris and Scheidel, eds., *The Dynamics of Ancient Empires*; Bang and Bayly, eds., *Tributary Empires in Global History*; Kim et al., eds., *Eurasian Empires in Antiquity and the Early Middle Ages*; Tesse Stek and Bleda Düring, eds., *The Archaeology of Imperial Landscapes: A Comparative Study of Empires in the Ancient Near East and Mediterranean World* (Cambridge: Cambridge University Press, 2018); Yuri Pines, Michal Biran, Jörg Rüpke, and Eva Cancik-Kirschbaum, eds., *The Limits of Universal Rule: Eurasian Empires Compared* (Cambridge: Cambridge University Press, forthcoming).

[3] To this effect, see, for example, Stek and Düring, "Towards a Patchwork Perspective on Ancient Empires," in Stek and Düring, eds., *The Archaeology of Imperial Landscapes*, 351-362.

transaction costs in the economy conducive to the growth of trade. Other scholars see the empires less as a benevolent provider of institutions for the benefit of private economy and more as a predator whose extraction forced local societies to intensify production and enter markets in order to earn tax money. Although differing in their assumptions about the state's nature, economic function, and mechanisms by which this function was brought to fruition, both these approaches consider private markets as an essential arena where the social and economic impacts of empires were realized.

Archaeologists, on the contrary, are better equipped to document differences in the local strategies of imperial rule as reflected in material remains, a par excellence manifestation of economic conditions on the ground. Instead of assuming that the pre-modern empires were military overlay organizations intrinsically lacking the ability to directly affect social and economic change and exerting their impact through private market interface only, this research revealed multiple instances of impressively successful operation of the ancient command economies – systems where government controlled production and distribution of materials and goods, engineered production environments (e.g., by constructing field systems and irrigation schemes), and reshuffled settlement patterns.[4]

The zones of imperial activism were spatially limited, their location and extent being determined by strategic objectives and fiscal considerations. Other, less costly and intensive, more "hegemonic" than "territorial" strategies of rule applied outside of these islands of state control. Precise configurations of imperial policies in any given area were defined by innumerable factors such as the local environment, spatial, cultural, and economic relationship to other localities,

[4] See Stek and Düring, eds., *The Archaeology of Imperial Landscapes* for an archaeological perspective on the social and economic impact of empires in the ancient Near East and Mediterranean.

preexisting traditions of participation in wider political systems. As the result, archaeologists tend to analyze empire's impacts in terms of complexity of its territorial constitution, diverse repertoires of rule, and connectivity networks of human migration, economic exchange, and cultural influences. This nuanced and localized approach in the study of empires is increasingly adopted by textual scholars as well.

1. Empire-building and economic change in the Qin

The present study combined both the macro and micro perspectives on the relationship between empire-building and economic change during the formative era of ancient Chinese empires. This period opened in the late fourth century BCE with the expansion of the Qin state beyond its core in the Wei River basin and culminated with the completion of the Qin conquest of the Zhou world in 221 BCE, followed by the brief period of the Qin Empire until its collapse in 207 BCE.

Understanding imperial state formation in East Asia requires going beyond these chronological limits. The fact that the First Emperor considered his historical mission completed in his twenty-sixth reign year (221 BCE) when the last of the "warring states" surrendered to Qin is explained by the awareness of a socio-cultural and political system whose members were finally unified under one ruler in that year. The origins of this system can be traced back to the expansion of the Western Zhou state some 800 years earlier, but it was equally an outcome of ceaseless process of integration of various "alien" groups and new cultural features that kept arriving to the Zhou world throughout its history. This integration involved not only continuous renegotiation of what it meant to be a member of "civilized" society but also the expansion of technological and

geographical horizons that affected the shape of interaction networks, ideas about the greater world, and strategic decisions about directions and limits of territorial expansion.[5]

Along the lines of analysis that Li Feng advocated in his study of Western Zhou,[6] I argued that this dynamic historical geography of human interaction is key to understanding imperial state formation in East Asia. In particular, long-distance connectivity networks to the north and south of the Middle Yangzi instructed the political process in this region starting from the late Neolithic period, and their geographic shape is important for understanding the Qin expansion in this region. At the same time, it is important to remember that there was no such thing as a geographically, culturally, or otherwise predefined "Chinese sphere" which was destined for political unification.

Appreciation of the *longue durée* of empire-building in the South provides an entry point for conceptualizing the state-economy relationship in the ancient empires. That not only the colonial Western empires of the early modern age but also ancient empires expanded along existing exchange networks has long been recognized in historiography, even though the implications were sometimes overdrawn.[7] Transportation and trade routes, of course, were also the convenient routes

[5] The presence of "alien" populations that did not participate in the Zhou-style lineage society and ritual culture, and of the "regional groups" that embraced parts of the Zhou culture while preserving important elements of non-Zhou identity is increasingly appreciated by archaeologists who observe broad distribution of burials with pronounced "northern" features throughout the first millennium BCE. The inquiry into Eurasian influences on the "Chinese society" and their impact on the major socio-economic and political transformations that took place during the Eastern Zhou period are still in its very early stages. It is heavily focused on the northern and north-western connections and virtually neglects comparable dynamics in the south. For important contributions to the emerging understanding of multi-cultural, multi-ethnic nature of continental East Asian society in the first millennium BCE, see, for example, Falkenhausen, *Chinese Society*, 204-243; Jessica Rawson, "Carnelian Beads, Animal Figures and Exotic Vessels: Traces of Contact between the Chinese States and Inner Asia, ca. 1000–650 BCE," in Mayke Wagner and Wang Wei, eds., *Bridging Eurasia* (Mainz: Philipp von Zabern, 2010), 1-42; Rawson, "China and the Steppe: Reception and Resistance," *Antiquity* 91 (2017): 375-388; Xiaolong Wu, *Material Culture, Power, and Identity in Ancient China* (Cambridge: Cambridge University Press, 2017).

[6] Li Feng, *Landscape and Power*, esp. 318-332 with regard to the Zhou expansion in the south.

[7] Some scholars sought to extend the Marxist-inspired world-systems analysis to the earlier periods, arguing that imperial state formation in the ancient world was essentially designed to manage the unequal exchange (in favor of the former) between the agricultural cores and peripheries that supplied mineral resources and animal products. See, for example, V.A. Yakobson, ed., *Istorija Vostoka,* vol. 1: *Vostok v drevnosti* [*Orient in antiquity*], 121-123. While

of conquest and military supply. The empires also sought to tax or monopolize long-distance exchange in valuable and prestigious goods that played important roles in their political economy. Finally, preexisting geographic connectivity meant that less investment was needed for opening up communication routes, relocating people, and deploying administration necessary for the functioning of the imperial command economy; and that the state enjoyed facilitated access to private markets for the purpose of procurement.

In other words, "markets," broadly construed as non-state exchange networks, were essential not only in geographically shaping empires but also in making them logistically feasible.[8] The ways in which state formations affected the exchange networks along which they deployed themselves, varied from case to case. In the Qin Empire, this was largely defined by the practices of surplus extraction and economic management that developed during the mid-fourth century BCE reforms.

These reforms pursued the goals of strengthening the military power of the state by upgrading its fiscal capacity and centralizing administration of manpower and resources. Such measures were, to a greater or lesser extent, attempted by all major polities of the Warring States era. What is exceptional and largely unexplained is Qin's success in thoroughly implementing the most radical version of reforms, including pervasive social engineering, state control over the distribution of agricultural land, intensive monitoring of populations and resources for fiscal purposes, and the extensive state sector of the economy.[9] The topographic characteristics of the

this scenario may have explanatory value for some early empires, particularly in the Near East, it can hardly be considered a universal pattern.

[8] For this point, see also Scott, *The Art of Not Being Governed*, 45.

[9] We have too little information about the outcomes of similar reforms in other Warring States polities to confidently state the uniqueness of Qin success. However, the differences between the institutions in Qin, on the one hand, and

Qin homeland in the Wei River basin and the long tradition of exceptionally large-scale labor mobilizations (which itself begs explanation) go some way towards explaining the virtual revolution in Qin's socio-economic organization. Other factors, such as the government's role in organizing settlement and agricultural reclamation of the alluvial plains, which accelerated with the spread of iron metallurgy, applied in Qin as elsewhere.

The Qin command economy system operated at previously unseen geographical scale and with equally unprecedented organizational sophistication. The state engineered natural and human landscapes through irrigation and land reclamation, intensification of resource exploitation, resettlement and colonization, introduction of new technologies and tools. At its core in Guanzhong, the settlement pattern and agrarian landscape were thoroughly transformed with the introduction of new, state-managed land tenure system. With the commencement of conquest campaigns, the enclaves of state control, characterized by reorganization of local societies and economies, heavy presence of officials, and intensive fiscal extraction, sprang up along the key routes of military logistics.

Populations of strategically important regions were transposed and replaced with colonists whose migration and settlement were organized by the government. The Qin taxation system was designed in the way to maximize the revenues from these islands of state control. The Qin government claimed full control over collection and redistribution of revenues to the exclusion of any private intermediaries, a point that was repeatedly emphasized by its Legalist ideologists. Combined with the masterful geographic deployment of zones of state control, which also included numerous production and storage facilities directly operated by the government, this extraction

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the states in the eastern part of the Zhou world, on the other, can be demonstrated in some cases, as it has been done for the land taxation regimes.

regime proved highly efficient in financing warfare in the age of mass infantry armies composed of unpaid conscripts. At the same time, it set severe limitations not only on the territorial extent of "state space" but also on the central government's ability to negotiate with the potential stakeholders in the imperial order, including its own agents, the local officials.

These structural limitations are visible in retrospect. What triggered profound transformations in the fiscal institutions and economic management at the end of the Warring States and especially during the imperial Qin period were the logistical odds of running the enormous network of state-managed production facilities, collecting and redistributing in-kind revenues, supplying and operating unfree labor force. The transaction costs in the centralized command economy were no longer manageable after the near doubling of the imperial territory and probably more than doubling of population in the wake of conquest campaigns during the final decade of the Warring States period. The empire's government acknowledged its inability to effectively control these vast seizures by instituting a special administrative regime on the "new territories" that were overtly treated as a hostile space where the Qin rule was challenged by organized, armed adversaries.

The excavated archive of Qin administration in the recently conquered lands can be read as a catalogue of inadequacies and failures of the state-managed redistributive systems. Officials ceaselessly complained about the shortage of personnel and materials that were supposed to be allocated by the government. To keep its offices and workshops running and its functionaries and servicemen clothed, local authorities resorted to private markets that provided essential supplies, such as textiles, as well as locally specific tributary goods and unfree laborers to replenish state-operated gangs of convicted criminals. Equally routine was the sale of government stockpiles and

leasing out of convicts to private employers, aimed at reducing the running costs of the state economy.

Market-oriented behavior on the side of local authorities is also manifested in the growing attention to market prices. The Qin Empire instituted systematic price monitoring for key commodities to instruct local governments' decisions to sell and buy at markets. This was a new practice unattested in the Warring States Qin. Numerous records of state procurement through markets and of the market sales of produce of government-operated workshops, as well as the liberalization of legal regulation of commerce also point at the growing importance of private markets for the normal operation of local administration.

The Qin case, therefore, illustrates the dynamics that can be observed for many other imperial states: while most if not all empires practiced command economies, sometimes on an impressive scale, their territorial extent made them dependent on decentralized, commercial procurement schemes. This dependence made empire-builders interested in improving the efficiency of market performance, while they were also doing their best to make markets controllable and taxable. This was achieved through a combination of legal regulation, investment in communication infrastructure, unification of weights, measures, and value standards. In the societies familiar with coinage, the latter was usually synonymous with monetization. Insofar as all of these elements – legal regulation, connectivity infrastructure, and measurement standards – were also central to the operation of the redistributive command economy, the latter had a potential for a powerful, positive spillover effect upon the private markets.

In the present work, this dynamic was illustrated by the case studies of commodification of labor in the Qin command economy, which facilitated the growth of markets for labor during the early imperial era; and of the material and intellectual infrastructures of physical mobility that

provided conditions for expansion of circulation networks for people, resources, goods, and information. In both cases, the growth of private markets was not an intended result of the state policies, which often pursued overtly restrictive rather than liberalizing goals, e.g., suppressing the politically undesirable forms of private dependency or limiting transportation to specific routes.

The case of monetization is part of this story. It also reveals some important ramifications of state-market engagement for the administrative efficiency and agency relationship in an ancient empire. Introduction of Qin coinage coincided with the beginning of conquest campaigns in the regions with well-established monetary economies, suggesting that the convenience of military procurement was the main rationale. State purchases were also crucial for promoting the use of coinage in the regions where monetization was low or nonexistent prior to the arrival of Qin armies.[10] By the time of imperial "unification," coined money was a vital resource for the local authorities, and lack thereof paralyzed their normal functioning.

Yet, in accordance with the logic of centralized command economy, the empire's fiscal system severely restricted the economic agency of local officials. Monetary revenues for the most part had to be directed to the center. This may be explained by the typically Legalist suspiciousness of independent local decision-making, which would have been facilitated if local governments had been allowed to accumulate currency reserves. It is also easy to see that such fiscal organization defeated the project of reducing the cost of local administration through engagement with private markets. County officials in the Qin Empire complained in writing about the lack of cash to purchase essential supplies, received permission to collect the needed amount from the commandery treasury, which they had then to travel to before being able to carry out a market

[10] This was a typical context of monetization in the regions previously unfamiliar with coined money. See, for example, Sitta von Reden, *Money in Classical Antiquity* (Cambridge: Cambridge University Press, 2010), 26.

transaction. Such procedures facilitated centralized monitoring of cash circulation at the cost of compromising on administrative efficiency and alienating local officials.

The profile of local officials evolved in lockstep with the growing engagement between the state and the private markets. With their privileged access to communication infrastructure and geographical knowledge, familiarity with legal system and the ways it could be bypassed, networks of influential acquaintances, and higher-than-average level of literacy, government functionaries were well situated for commercial activity. The Qin archive provides what may be the earliest instance in Chinese history of the infrastructure of the command economy being diverted toward private profit-making goals. Such commercially-oriented behavior was typical not only of individual officials but also of the local government offices that sought to increase their monetary incomes. The entire administrative establishment was becoming subversive toward the ideal of a centralized, redistributive economic system it was supposed to serve.

2. Afterlife of the Qin economic-managerial institutions: the Han compromise

In spite of the gradual monetization of state revenues, the growing importance of private markets in government procurement, and the softening of some of state-sponsored redistributive schemes (particularly land distribution) during the imperial period, Qin's command economy was far from being destined to decline and disintegrate. Rapid territorial expansion at the end of the Warring States inflated transaction costs in centralized economic management, and imperial frontiers turned into arenas of economic-managerial innovations. However, these innovations were not necessarily market-oriented. The Qin imperial period witnessed an impressive surge in the

scale of the official labor projects and some of the greatest state-managed resettlements in the ancient history,[11] which boosted centralized redistribution of foodstuffs and other resources.

Far from being an evolutionary outcome of the late Warring States and imperial Qin developments, the collapse of the Qin command economy was made possible by the violent destruction of the Qin Empire followed by the all-out war that ravaged the continental East Asian oikumene between 209 and 202 BCE. Even though one of the successor states, the Han, eventually consolidated control over the Qin homeland of Guanzhong and then, through some ingenious alliance-building, nominally reunified most of the imperial possessions, more than half of the new empire was divided between autonomous polities, a situation that endured for the first half-century of the Han rule. Fiscal decentralization accompanied administrative decentralization. Regional princedoms enjoyed considerable autonomy in raising and spending their revenues. The state economy underwent similarly dramatic decline, most vividly exemplified by the disintegration of state-managed administration of agriculture.

It is important to notice that the Han rulers otherwise tended to preserve the institutional setup of the Qin Empire. I suggested that the Han failure to reconstruct the Qin-style state economy was part of the agency relationship, a compromise with the central government's agents, the local officials, interested in reducing the scale of the redistributive command economy and staple finance. During the same period, the core elements of the Qin fiscal model were progressively abandoned, and a fixed-rate, low-tax regime was taking shape. This regime produced more predictable income flows for the central government, reduced monitoring expenses, and laid out

[11] One recent study estimates the number of people relocated in course of the First Emperor's reign at 2.5–6 million, or 10-25% of the empire's population. See Barbieri-Low, "Coerced Migration and Resettlement in the Qin Imperial Expansion," 21-22. Although this estimate partly relies on rather dubious data and contested assumptions about the overall population of the Qin Empire, the extraordinary scale of population engineering during the Qin imperial period is confirmed by the more accurate records in the Qianling county archive.

foundations for coopting provincial elites through distributed access to resources and fiscal revenues. These goals were achieved at the cost of reduced state capacity to mobilize resources at times of emergency and the central government's increased dependence on the cooperation of elites in fiscal matters.

While the array of taxes developed in the Warring States and imperial Qin largely endured into the Western Han era, the distributive effects of the imperial fiscal system changed significantly. By the first century BCE, the vast majority of in-kind and almost half of the monetary revenues was retained at the local level. Instead of competing for revenues with its agents, the central government came to heavily rely on the incomes from empire-wide monopolies on the production and sale of iron and salt, which owed their profitability to the expansion of commerce within the empire.[12] Consolidation of provincial power was also reflected in the expansion of administrative functions of commanderies under the Western Han. In particular, commandery authorities came to supervise local finances, the function that in the Warring States Qin was exerted by the central government.[13] A private archive of a commandery clerk from the very end of the Western Han era illustrates how commanderies were also becoming geographical stages for the networking activities of regional elites.[14] Consolidation of provincial elite societies made it even more difficult for the imperial center to interfere in local matters.

The fiscal compromise with the state's local agents and the elites – the groups that were increasingly coalescing as the practice of local appointments prevailed under the Western Han – was accompanied by momentous transformations in imperial territoriality. The patchwork of

[12] For the distribution of revenues between the central and local governments in the Western Han Empire, see *Yinwan Han mu jiandu*, 77-78; Von Glahn, *The Economic History of China*, 113-120.

[13] For a recent discussion of these developments, see You Yifei, "Zhanguo zhi Han chu de junzhi biange."

[14] See Korolkov, "'Greeting Tablets in Early China," 311-325.

differentially configured regions where the "state spaces" of imperial control and extraction coexisted with extensive zones in which the state was all but absent, was gradually superseded with the more encompassing though less intensive territorial control and fiscal exploitation. By the middle of the Western Han era, the central government was able to extend its land surveying scheme, a vital precondition of land taxation, to the populous and economically developed eastern regions of the empire, which should have resulted in considerable expansion of the taxation base.[15]

This change was also reflected in imperial self-representation. When the official history of the Western Han was composed in the first century CE, empire was construed as a continuous territorial entity where the central government enjoyed accurate knowledge of the area of arable and fallow land as well as wildernesses, and of population on those lands.[16] Such empire-wide statistics relied on the information provided by local authorities. While the latter were systematically distorting the data in order to reduce tax remittances to the center,[17] and central authorities' actual knowledge of local conditions was almost certainly much inferior to its representation in official texts, the Han vision of their empire contrasts sharply with that of the imperial Qin that overtly acknowledged the lack of control over the territories where its strategy of intensive if localized control had not yet been implemented.

The Han "fiscal transition" can therefore be seen as fruition of some important trends in the economic and financial management in the Qin Empire: reduction in the intensity of centralized monitoring and management of local resources and increasing reliance on private markets for state

[15] *Yantielun*, 3.191; 196-197, comm. 25.

[16] *Hanshu*, 28B.1640.

[17] For particular examples of misreporting by the local authorities to the central government in the late Western Han period, see Gao Dalun 高大倫, "Yinwan Han mu mudu "jibu" zhong hukou tongji ziliao yanjiu" 尹灣漢墓木牘"集簿"中戶口統計資料研究 [A study of household data in the "Collected registers" on a wooden tablet from the Han tomb at Yinwan], *Lishi yanjiu* 5 (1998): 110-123.

procurement and, eventually, also for taxes, accompanied by monetization of in-kind revenues. It is important to remember that the transformation of the military-physiocratic fiscal and economic-managerial model associated with the Warring States Qin was not coterminous with the complete abandonment of this model by the following dynasties. The Han emperors, for example, presided over a number of major resettlement projects targeting strategically important areas, particularly the capital region and the northwestern frontier, earmarked for demographic and economic intensification. For their success in the long run, however, such command-economy projects relied on the work of private markets, which was appreciated by the imperial government when it sought to make the state-sponsored population clusters the centers of effective demand capable of attracting people and goods in the lack of further official intervention.

Some basic economic conditions were required for the command and market mechanisms to work in sync toward the desired outcomes. The key one was the normal functioning of monetized markets, which was potentially endangered by the surge in state expenditure (usually associated with external wars or internal turmoil) leading to the devaluation of currency and/or increased taxation of commercial and landowning elites. The latter's opposition often took the form of wealth concealment and withdrawal from market transactions, resulting in further disruption of commerce and pushing the government toward more radical command-economy solutions. The latter tended to reproduce the policies of the Warring States Qin, such as redistribution of land, mass mobilizations of unpaid labor, and tight monitoring of taxation base and local state agents.[18] While the imperial fiscal consensus developed under the Han remained

[18] The early Ming Empire (1368–1644 CE) presents one of the most vivid examples of reproduction of fiscal institutions of the Warring States Qin. See Ray Huang, "The Ming fiscal administration," in Twitchett and Frederick Mote, eds., *The Cambridge History of China*, vol. 8: *The Ming Dynasty, 1368-1644*, part 2 (Cambridge: Cambridge University Press, 1998), 106-171; and Von Glahn, *The Economic History of China*, 285-288. Another and more recent incarnation of the Qin-style command economy occurred in course of the communist reconstruction of the Chinese economy and society in 1950's that was accompanied by strong ideological references to the Qin reformer Shang Yang and the First Emperor of Qin. See Frederik Teiwes, "Establishment and Consolidation of the New Regime," in

normative for most of the imperial history, periodic oscillations between the command and market-oriented economy-managerial policies attest to the lasting ideological and practical attractiveness of the Qin-style economic organization for empire-builders in China.

3. Empires, networks, frontiers: general observations on economic change in ancient empires

I would like to conclude with some general observations about the dynamics of imperial economic systems. First, insofar as the empires deployed themselves along the lines of preexisting connectivity (economic, political, cultural, etc.), the networks of economic exchange ("markets") reinforced the imperial networks of administrative command, military logistics, and fiscal extraction. By facilitating the transfer of people, goods, and information, connectivity networks enhanced the potential of the imperial command economy – direct, centralized engineering of human and economic landscapes. By the same token, they encouraged imperial overstretch, which, in turn, was leading to the empire's increasing reliance on private markets that offered more flexible and less costly – from the perspective of the central government – mechanisms of state procurement and surplus extraction. Official investment in communication infrastructure, even if originally intended to serve state-managed redistribution of resources, eventually contributed to expansion and intensification of markets.

The command economy, elements of which are traceable in many if not all ancient empires, and private markets were not mutually exclusive principles of economic organization. To a

Roderick MacFarquhar and John Fairbank, eds., *The Cambridge History of China*, vol. 14: *The People's Republic*, part I: *The Emergence of Revolutionary China 1949-1965* (Cambridge: Cambridge University Press, 1987), 51-143; and Pines, *The Book of Lord Shang*, 109-110.

considerable degree, they were mutually reinforcing. They offered diverse repertoires of strategies of imperial control, which allowed, sometimes simultaneously, to pursue such seemingly contradictory political-economic goals as extraction maximization and the "fiscal compromise" with local elites, population engineering in the strategically important zones and the encompassing of socio-economic diversity across the imperial oikumene. The case of the early Chinese empires indicates the trend from the centralized command economy, physiocratic fiscal model, and intensive exploitation of populations and resources within territorially circumscribed "state spaces" toward thriving private markets, taxation of commerce, and expansive but low-intensity control over local societies. This trend, however, was not irreversible. Economic policies were instructed by the conditions of private markets and other connectivity networks.[19]

Second, it was not so much ecology per se that imposed limitations on the imperial expansion as the shape of connectivity networks. The stubborn attempts by the north-based Chinese empires to set foot in the sub-tropical and tropical zone with its radically different climate, topography, vegetation and wildlife, agriculture, and microbiota, are still perplexing scholars.[20] Yet we now know that river basins to the north and south of the Yangzi have since Late Neolithic been home to the societies that engaged in economic exchange, cultural borrowings, and political integration. Starting from the Bronze Age, the Middle Yangzi interaction zone was connected to the early dynastic states in the Yellow River basin by serving an important supplier of copper ores

[19] It is important to remember that market networks circulated not only commodities and labor but also, among other things, knowledge, technology, and germs. See, for example, McNeill, *Plagues and Peoples*, 69-131, for the impact of contagious diseases spreading along the trade routes on the fate of Eurasian empires in Late Antiquity.

[20] See, for example, Nam Kim, "Sinicization and Barbarization: Ancient State Formation at the Southern Edge of Sinitic Civilization," in Victor Mair and Liam Kelley, eds., *Imperial China and Its Southern Neighbors* (Singapore: Institute of Southeast Asian Studies, 2015), 43-79, esp. 71-72.

to the major metallurgical centers in the North while adopting and adapting the elements of northern ritual culture and forms of political legitimation.

The Qin campaigns against the state of Chu in the late Warring State period illustrate how considerations of security – first, of the own state core and then of the recent territorial acquisitions – and military logistics, informed by the internal connectivity within the long-established interaction zone, led to a series of conquests aimed at establishing a topographically optimal strategic perimeter. At the next stage of the imperial expansion, the objective was to control trade routes, particularly those of exotic goods, which were also defined by the geography of interaction zone but transcended its topographic borders. Rather than being instructed by any consistent "grand strategy" or even considerations of feasibility, empire-building in East Asia appears to have been a new way to shape economic and political relationships along the existing networks. As has also been the case latter in Chinese history, this way was laid out in the process of "crossing the river by feeling the stones"[21] and can therefore be defined as such only in retrospect.

At the same time, the arrival of the empire signified momentous transformations in the nature of interregional connectivity. In spite of the brevity of the Qin rule to the south of Yangzi, its investment in mapping the region, laying out the lines of post relay communication, introducing iron metallurgy and coinage, and remodeling local communities were not wasted, as suggested by the relatively peaceful takeover of the region by the subsequent Han Empire. Although much more archaeological work is needed before the local reactions to the imperial rule in the Middle Yangzi region are better understood, integration of the regional interaction zone into the greater imperial

[21] The famous phrase is often misattributed to Deng Xiaoping 鄧小平 (1904–1997), but was probably first used by Chen Yun 陳雲 (1905–1995), another influential PRC leader during the 1980-s and 1990-s. See Wikiquote, https://en.wikiquote.org/wiki/Deng_Xiaoping, accessed November 22, 2019.

network where technology and organizational and technical expertise circulated along with the material resources and people should have had appeal for the local populace.

Finally, frontiers as sites of empire-building require further exploration. Scholars of the Roman Empire used to emphasize the role of military frontiers in initiating populations of the periphery into the Roman material culture and consumption habits, on the one hand, and in promulgating long-distance trade to supply armies, garrisons, and military colonies, on the other. Both processes are believed to have been leading to economic and cultural integration. The same can be observed for the Qin imperial frontier, but its role as a locus of empire-building was more multifaceted. The porous nature of imperial territoriality, discussed in the Introduction, means that frontiers cannot be defined simply by remoteness from the imperial center, rather they are to be defined by a specific composition of population and array of policies applied there.

Frontiers were par excellence zones of state activism and experimentation. They could, as in the Roman and Chinese cases, be the zones of enhanced monetization due to the state spending. As such, frontier societies had impact on the formation of market ties not only within but also beyond the empires. Frontiers also featured concentrations of "marginal" populations, which resulted in the development of new social and economic forms. The documented Qin frontier society, for example, appears to have included considerably larger numbers of dependent populations than historians assume typical in the early Chinese empires. This was as much a social frontier as it was a territorial and economic one, a stage of experimentation with various new forms of state control, social organization, subsistence patterns, and procurement policies. Experimentation often took unexpected turns, as, I argued, in the case of the impact of unfree labor system on the formation of labor markets. New practices transcended the frontier environment to affect wider economic change and make possible new models of imperial rule.

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Zou Shuijie 鄒水杰. “Jiandu suojian Qin dai xianting lingshi yu zhucao guanxi kao” 簡牘所見秦代縣廷令史與諸曹關係考 [A study of the relationship between the scribes at the county court and the bureaus under the Qin Empire as reflected in the documents on bamboo and wood]. *Jianbo yanjiu 2016. Chun xia juan*, 132–146.

Zou Yilin 鄒逸麟 and Zhang Xiugui 張修桂. *Zhongguo lishi ziran dili* 中國歷史自然地理 [*Historic natural geography of China*]. Beijing: Kexue, 2013. 336–358.

Zuozhuan (Chunqiu jingzhuan jijie) 左傳（春秋經傳集解） [*The Zuo Commentary: Collected annotations to the classic of “Spring and Autumn” and its commentary*]. Shanghai: Shanghai guji, 2007.

Appendix A: The Qin system of land taxation: collection procedure, tax rates, agency

The most extensive group of excavated legal texts dealing with the land tax (*zu* 租) are the fragments of Qin statutes unearthed in 1989 from the tomb no. 6 at Longgang 龍崗, Yunmeng County of Hubei Province. These texts are dated to the imperial Qin period between 221 and 207 BCE.[1] Scholars noticed that the group of articles related to land taxation (slips 125-195 on which the graph *zu* appears 25 times) often use the words *cheng* 程, "norm", including the two cases of a compound *chengzu* 程租, "the norm for the land tax" and two more cases when the two graphs appear in the same phrase.[2] In some instances, *cheng* appears in regulations concerning penalties for various offences committed during the collection of land tax, such as deliberate increase or reduction in the amount of tax or the failure to collect tax in full.[3] Although the meaning of *cheng* with regard to land taxation is not explained in the Longgang fragments, this term is frequently applied in the much better preserved Qin and early Western Han statutes from Shuihudi and Zhangjiashan where it clearly refers to productivity norms.[4]

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[1] For the dating of the Longgang documents, see Liu Xinfang 劉信芳 and Liang Zhu 梁柱, *Yunmeng Longgang Qin jian* 雲夢龍崗秦簡 [*Qin slips from Longgang, Yunmeng County*] (Beijing: Kexue, 1997), 48. Longgang is located near the old Chu capital Jinancheng 紀南城 to the north of Middle Yangzi, which was one of the major areas of Qin settlement in the region.

[2] *Longgang Qin jian*, 116, slip 129; 118, slip 136.

[3] *Longgang Qin jian*, 118, slip 136; 115, slip 126.

[4] See, for example, *Shuihudi*, 45-46, slips 108-110 (with regard to artisans working for the government); 47, slips 122-124 (with regard to statute labor); Hulsewé, *Remnants*, 61-62, 64; *Ernian lüling yu Zouyanshu*, 203-205, slip 273 (with

The application of *cheng* norms in land taxation is illustrated by the tasks from the excavated Qin and early Western Han arithmetic manuals.[5] A number of these tasks deal with re-assessment of the taxable productivity of agricultural fields measured in raw produce. In each case, the "norm" is an area of a field necessary to produce a fixed volume (usually one *dou* 斗 = 2 liters) of grain.[6] The same problem is addressed in a task that contains important details of land tax collection and deserves full quotation[7]:

> 租吳（誤）券　　田一畝租之十步一斗，凡租二石四斗。今誤券二石五斗，欲益耎其步數，問益耎幾何。曰：九步五分步三而一斗。术（術）曰：以誤券為法，以與田為實。
>
> Taxation: error in ticketing
> A field of 1 *mu*: tax it at 1 *dou* for 10 *bu*. The overall tax is 2 *shi* 4 *dou.* Now it is wrongly ticketed at 2 *shi* 5 *dou*; it is desired to increase or cut down the number of *bu*. Question: how much should the increase of decrease be? Reply: 9 *bu* and $3/5$ bu for 1 *dou*. Method: take the mistaken ticketing as the divisor; take the given field as the dividend.

regard to the servicemen of the relay post stations); 248-250, slip 412 (with regard to transportation); Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 740-741, 902-913.

[5] One such manual, titled *Suan shu shu* 筭數書 [*Writings on reckoning*] was excavated from the same Zhangjiashan tomb no. 247 that yielded the collection of legal statutes and ordinances along with other manuscripts, see *Zhangjiashan Han mu zhujian (ershiqi hao mu): shiwen xiudingben* 張家山漢墓竹簡（二四七號墓）：釋文修訂本 [*Bamboo slips from the Han tomb at Zhangjiashan (tomb no. 247): a corrected annotated edition*], ed. Zhangjiashan ersiqi hao Han mu zhujian zhengli xiaozu 張家山二四七號漢墓竹簡整理小組 (Beijing: Wenwu, 2006), 129-157, slips 1-190, and Peng Hao 彭浩, *Zhangjiashan Han jian "Suan shu shu" zhushi* 張家山漢簡《算數書》註釋 [*Annotated "Writings on reckoning" on the Han slips from Zhangjiashan*] (Beijing: Kexue, 2001). Christopher Cullen translated this text into English, see *The Suàn shù shū* 筭數書 *'Writings on Reckoning': A Translation of a Chinese Mathematical Collection of the Second Century BC, with Explanatory Commentary* (Needham Research Institute Working Papers 1) (Cambridge: Needham Research Institute, 2004). A similar collection of mathematical tasks, titled *Shu* 數 [*Reckoning*] is part of the collection of Qin manuscripts acquired by the Yuelu Academy, see *Yuelu shuyuan cang Qin jian*, vol. 2, ed. Zhu Hanmin 朱漢民 and Chen Songchang (Shanghai: Shanghai cishu, 2011), and Xiao Can 蕭燦, *Yuelu shuyuan cang Qin jian "Shu" yanjiu* 岳麓書院藏秦簡《數》研究 [*A study of "Shu" in the Yuelu Academy collection of Qin documents*] (Beijing: Zhongguo shehui kexue, 2015).

[6] See, for example, *Zhangjiashan Han mu zhujian*, 143, slips 83-85; 143-144, slips 86-87; Cullen, *The Suàn shù shū*, 65-66; *Yuelu shuyuan cang Qin jian*, vol. 2, 33-35, slips 2-5 (0887, 0537, 0955, 0388); Xiao Can, *Yuelu shuyuan cang Qin jian "Shu" yanjiu*, 27-30.

[7] *Zhangjiashan Han mu zhujian*, 145, slips 96-97; translation follows Cullen, *The Suàn shù shū*, 70.

While this task does not use the term *cheng*, the "norm" here is clearly the area of field that produces one *dou* of tax. The task operates the Qin metric system with its basic unit of area, the *mu* 畝 (ca. 461 sq. meters), consisting of 240 square *bu* 步 ("paces") (10 *bu* = 1 *dou*, 240 *bu* = 24 *dou* = 2 *shi* 4 *dou*). Repeated calculation is made necessary by a mistake in what the text refers to as *quan* 券, a "tally" or "ticket", which sets up a larger than supposed overall tax amount per unit of land. The text does not explain the origins of the tally, but it is clear that whoever was in charge for assessing the new "norm" was in no position to make changes to the figure in the tally. Instead, they had to act on its basis by reassessing the taxable productivity of field required to match this figure.

An arithmetical task from the Yuelu Academy collection of Qin manuscripts sheds more light on the circumstances leading to the re-estimation of productivity and taxation norms for an arable field. According to the boundary conditions, the productivity norm for the field was established at one *dou* per thirteen (should possibly read as "twelve") square paces (*bu*). The task is to adjust this figure in view of the bumper crop that renders tax collected on the basis of the existing estimate of field produce too light (今禾美，租輕田步，欲減田). The new productivity norm is one *dou* per eleven *bu*, with the result that the required two *shi* (ca. 40 liters) of grain is collected from an area 200 *bu* less than would be needed under the old norm.[8]

Regular adjustments in the estimates of productivity norms and the amount of tax to be collected from an area of fields explain the large number of "ticketing" problems in the Qin and early Western Han arithmetic manuals. Rather than collecting fixed volume of grain per unit of

[8] *Yuelu shuyuan cang Qin jian*, vol. 2, 54, slips 42-43 (0813, 0785).

arable as it came to be practiced later in the Han era (see below), the local officials in Qin had to routinely reassess the tax quotas within their jurisdiction on the basis of expected harvest yields.[9] Let us see if the hypothetical situations dealt with in arithmetic manuals find parallels in the actual record of tax collection.

During the Han era, tallies (*quan*) were often (though not exclusively) associated with identical copies of written agreements and certificates (such as receipts of transferred grain and other materials) inscribed on wooden slips, one copy for each party. Later tradition states that the special notches cut on the sides of such slips made possible verification when the copies were put together.[10] Archaeological discovery of tallies suggest that notches served the purpose of recording the amounts mentioned in the tally texts, to prevent the attempts to manipulate the text.[11] Tallies were used in a broad range of private and public transactions to keep track on the amounts of goods exchanged, disbursed, or stored.[12]

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[9] Occupants of both the Zhangjiashan tomb and the tomb from which the Yuelu Academy manuscripts most likely came from are identified as local officials. That the occupant of the Zhangjiashan tomb no. 247 spent at least certain period of his lifetime serving as an official is suggested by a retirement (*mian* 免) record in the private calendar recovered from his burial, see *Zhangjiashan Han mu zhujian*, 3, slip 10; see also Barbieri-Low and Yates, *Law, State, and Society*, vol. 1, 48. For the status of the occupant of the tomb that the Yuelu Academy slips came from, see Shi Da 史達 (Thies Staack), "Yuelu Qin jian "Nianqi nian zhiri" suo fu guanli lüli yu san juan "zhiri" yongyouzhe de shenfen" 岳麓秦簡《廿七年質日》所附官吏履歷與三卷《質日》擁有者的身份 [Official's curriculum vitae in the "Event calendar of the twenty-seventh year" from the Yuelu collection of Qin documents and the status of the owner of three "event calendars"], *Hunan daxue xuebao (shehui kexue ban)* 30.4 (2016): 10-17.

[10] Xu Shen 許慎, Duan Yucai 段玉裁 (annotations), *Shuowen jiezi zhu* 說文解字注 [*Explaining graphs and analyzing characters, annotated*] (Shanghai: Shanghai guji, 2006), 4B.182.

[11] Momiyama Akira 籾山明, "Kechi jiandu chutan – Han jian xingtai lun" 刻齒簡牘初探－漢簡形態論 [A preliminary discussion of notched documents on bamboo and wood – towards understanding the form of Han documents on bamboo and wood], in *Jianbo yanjiu yicong* 簡帛研究譯叢 [*Collected translated studies on bamboo and silk manuscripts*], ed. Zhongguo shehui kexueyuan jianbo yanjiu zhongxin 中國社會科學院簡帛研究中心 (Changsha: Hunan renmin, 1998), 147-177.

[12] For the legal article requiring tally documents to be drafted for tools, commodities, etc. lent by the government offices to private individuals or officials, see *Ernian lüling yu Zouyanshu*, 121-122, slips 78-79; 326, slip X3; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 472-473. More generally on the use of tallies in financial administration of the Qin and Han empires, see Li Junming, *Qin Han jiandu wenshu fenlei jijie* 秦漢簡牘文書分類輯解 [*Annotated collection of documents on bamboo and wooden slips from the Qin and Han periods by category*]

Excavated legal statutes and administrative records attest to the use of tallies for fiscal purposes. A fragment of a document dispatched by the Dongting Commandery headquarters to the subordinate county of Qianling mentions a "Qianling tally for regular levy" 恒賦遷陵券.[13] The meaning of "regular levy" is unclear since it is not mentioned anywhere else. A useful parallel is provided by an article of the "Statutes on labor service" (*yao lü* 繇律, also translated as "Statutes on statute labor" and "Statutes on government service") from the Yuelu Academy collection of Qin documents that mentions *quan* tallies in conjunction with the procedure of labor mobilization[14]:

> 繇律曰：歲興繇徒，人為三尺券一，書其厚焉。節（即）發繇，鄉嗇夫必身與典以券行之。田時先行富有賢人，以閒時行貧者，皆月券書其行月及所為日數，而署其都發及縣請（情）。其當行而病及不存，署于券，後有繇而聶（躡）行之。節（即）券繇，令典各操其里繇徒券來與券以畀繇徒，勿徵贅，勿令費日。
>
> The "Statute on labor services" state: Each year when people are mobilized for labor services, one tally three *chi* long (ca. 69.3 cm) should be prepared for each [mobilized] individual indicating the wealth [of his household]. When mobilization commences, the District Head is obliged in person, together with the Village (Ward) Chief, to conduct it (labor mobilization) in accordance with the tallies. During the agricultural season, first mobilize those of wealthy and prosperous [households], and mobilize those of poor [households] during the slack season. Record the month of their mobilization and the number of days [they were performing labor services] on the monthly tally. Also record the [name of] metropolitan office that was using [their labor] and the details of county [where they are serving their terms of labor]. If those who should be mobilized are sick or absent, record this on the tally and mobilize them later when [there is a call for] labor service, in compensation [of the term of labor service they have missed]. When [the records about] labor services have been made on the tally, the Village (Ward) Chief should bring the tallies of each mobilized laborer in his village (ward) to hand these

(Beijing: Wenwu, 2009), 435-439; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 425-426, n. 70; 453, n. 208.

[13] *Liye Qin jiandu*, vol. 1, 147-148, tablet 8-433. The use of the term *heng* 恒 in fiscal context occurs in the Shuihudi "Statute on labor service" (*yao lü* 繇律) where it refers to routine tasks (*heng shi* 恒事) for which the county authorities were mobilizing labor, see *Shuihudi*, 47, slips 122-123; Hulsewé, *Remnants*, 64.

[14] *Yuelu shuyuan cang Qin jian*, vol. 4, 149, slips 244-246 (1241, 1242, 1363).

[tallies] to the laborers. Do not call for superfluous [services], and do not let [more] time [than needed] to be spent.

What is of interest for us here is the use of tallies in the fiscal process, of which labor mobilization was an instance. First, the amount of labor required for particular project was calculated on the basis of applied productivity standards (*cheng*).[15] Quotas for the number of individuals to be called for service and the duration of conscription term were then forwarded to the local officials in charge of mobilizing people within their areas of jurisdiction. These quotas cascaded down the administrative hierarchy until reaching its bottom level where district heads (*xiang sefu* 鄉嗇夫), assisted by village chiefs, assigned individual quotas to the households. At this stage, individual tallies were used to keep track on each household's performance of its assigned term of service, and a copy was issued to each laborer in acknowledgement of completion of his obligations. Another copy was in all likelihood retained by the district head, while the village chiefs acted as the latter's agents in communicating to households.[16]

Individual labor quotas were assigned on the basis of household records specifying, among other things, each household's wealth, and were stored at the district office, which was also in

[15] For respective legal requirement, see *Shuihudi*, 47, slips 122-124; Hulsewé, *Remnants*, 64.

[16] There is no evidence for village administration's involvement in production and circulation of written documents, even though such possibility cannot be completely ruled out. It appears that whenever a common subject was involved in the production of a written record, for example, a will to assign property to an heir, this was drafted in the office of district head, while the village chief verified the property title and the identity of individuals involved. For a respective legal rule from the beginning of the Western Han, see *Ernian lüling yu Zouyanshu*, 223-225, slips 334-336; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 800-801. For the samples of Qin wills that comply with this regulation, see *Liye Qin jiandu*, vol. 1, 326-327, tablet 8-1443+8-1455; 356-357, tablet 8-1554. For a discussion of document production at the district level and the possibility of village administration's involvement in this process, see Bu Xianqun 卜憲群, "Cong jiandu kan Qin Han xiangli de wenshu wenti" 從簡牘看秦漢鄉里的文書問題 [Analyzing the problem of written documents at the district and village levels of administration on the basis of the Qin and Han records on bamboo and wood], *Wenshizhe* 文史哲 6 (2007): 48-53.

charge for preparing respective individual tallies.[17] In doing so, the district heads were guided by the quotas received from the next level up the administrative hierarchy, the county. County labor quotas had to be set at the next level up hierarchy, which in the Qin case was most likely the commandery, with the exception of the capital region of the empire under its special administration, the Scribe of the Interior (*neishi* 內史). For the projects initiated at the local level, this chain did not extend upward of the county level.

Put together, the evidence from the Zhangjiashan and Yuelu arithmetic manuals, the Liye fragment, and the Yuelu "Statute on labor service" suggest that *quan* tallies were used in fiscal administration to assign contribution quotas to administrative units and ultimately to the taxpayer households. At each administrative level, the master tally was split into a number of subordinate tallies, which were dispatched further down the hierarchy, with copies kept at the issuing and receiving offices. At the bottom level, taxpayer households received their tallies on fulfillment of obligations (see Chart A.1).

[17] For the district head's responsibility for regularly updating household registers in the early Western Han Empire, see *Ernian lüling yu Zouyanshu*, 222-223, slips 328-330; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 798-799. The quoted article of the Yuelu statute shows that same rule applied in the Qin.

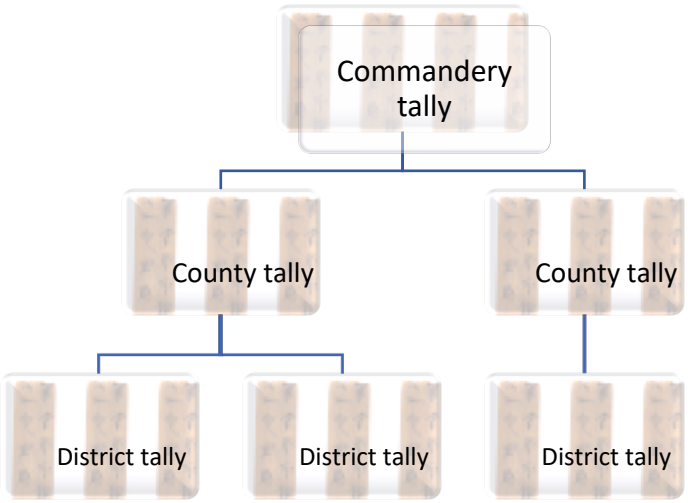

Chart A.1: Hypothetical allocation of fiscal quotas in the administrative hierarchy

This process applied also in the collection of land tax. "Error in ticketing" tasks refer to the bottom-level tallies bearing individual household tax quotas assessed on the basis of the area of land under cultivation and the expected agricultural output. Providing this information to the central government was among the essential responsibilities of local officials as attested in the Qin and Han "Statutes on fields". An article of the Zhangjiashan statute requires county officials to annually report the area of fields available for cultivation and assigned to households.[18] Reports had to be submitted before the middle of the fifth lunar month (that is, in early summer). The Qin statute additionally demanded reporting on the impact of weather conditions and natural calamities such as floods, plagues of locusts, and violent winds, on the agricultural crops, and the area of fields affected.[19] These reports had to be submitted before the end of the eighth lunar month (early fall).

[18] *Ernian lüling yu Zouyanshu*, 188, slip 243; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 696-697. It is unclear if this refers to the total area of agricultural land or only to the land that was cleared since the date of last reporting and distributed to newly formed households, as Barbieri-Low and Yates believe (see n. 17 and 19 on p. 706).

[19] *Shuihudi*, 19-20, slips 1-3; Hulsewé, *Remnants*, 21-22.

Tax quotas for each county were probably assessed on the basis of the first report and adjusted on the basis of the second. After the quotas were forwarded down the administrative hierarchy, no further corrections were possible.[20] On the arrival of fiscal tallies to the lowest administrative tier involved in written communication, the district, its head relied on his subordinate functionaries, the Village Chief (*dian* 典) and the Chief of the Fields (*tian dian* 田典), to make year's quota known to the taxpayers[21], and probably also to collect and deliver the tax grain to county granaries.[22] As in the case of labor services and other taxes, the *quan* tallies recorded tax quotas for agricultural land within each administrative jurisdiction down to the village level where it was split into household quotas.

The reconstructed procedure explains why the extant copies of the "Statute on agriculture" do not mention the rate of land tax in grain. The overall amount of tax as well as the amount to be collected per unit of land in each particular area was reassessed on an annual basis by the central government. Even if this reassessment was instructed by any consistent principle or legal rule,

[20] Yamada interprets the record on two fragmentary bamboo slips from Longgang as referring to the notches (*ke* 刻) on fiscal tallies received by local governments. One of this fragments also mentions land tax (*zu*): 上然租不平而刻者□□□□□□□. However, the editors of the 2001 edition of Longgang documents, published after Yamada's book, transcribed the graph as *he* 劾 rather than *ke* 刻 (the two graphs are written in essentially the same way in clerical script) and argued it stands for *he* 核, "to verify". They read the fragment as "…if the land tax is [distributed] unevenly, verify…" (*Longgang*, 119). Another fragment used by Yamada has no reference to the land tax. See Yamada, *Shin Kan zaisei shūnyū*, 52-53. While it is tempting to read the two Longgang fragments as direct evidence for the use of notched fiscal tallies in land taxation, the fact is they are too fragmentary for their context to be established with confidence.

[21] *Longgang Qin jian*, 122, slip 150. This fragment refers to the entire process as "issuing of land tax [quotas] according to the statutes" 租者且出以律.

[22] For the reconstruction of the collection process, and discussion of government agencies involved, see Yamada, *Shin Kan zaisei shūnyū*, 49-50. Fragments of the Qianling county archive excavated at Liye include a number of documents on grain shipment. One of these documents records the transportation of 62 *shi* (ca. 1,240 liters) of grain from Qiling 啓陵, one of the three districts of Qianling County, to the county Office of Granaries (*cang* 倉). See *Liye Qin jiandu*, vol. 1, 349, tablet 8-1525. The volume of transaction is large for a tiny district with just twenty-seven households, and it may well have been a transfer of tax grain. Grain transportation often required support from the county office of the Supervisor of Convict Labor (*sikong* 司空) who provided convicts for this task. See, for example, *Liye Qin jiandu*, vol. 1, 375, 8-1665.

these did not belong to the purview of local officials who were the users of legal manuscripts such as those excavated from the tombs at Shuihudi and Zhangjiashan.[23]

It is also important to notice that local officials were required to inform taxpayers of the annual quota, and probably also issue receipts as in the case of labor mobilization. This reduced opportunities for embezzlement and manipulation of tax quotas by providing a mechanism for independent verification of actual amounts collected by fiscal agents. A partly preserved document record from the Qianling archive refers to an attempt by the county's Town District to collect (*lian* 斂) a certain tax in the fifth month, which was against the law (*bu ying lü* 不應律) and encountered resistance from the taxpayers who refused to pay the tax (*bu ken ru* 不肯入).[24] The details are unclear, so we do not even know which tax this document is dealing with. Yet the fact that the matter was brought to the attention of the county authorities and probably investigated into suggests that the commoner taxpayers were to a certain degree aware of the tax-collecting procedure and could be used as a check on the opportunistic attempts of unlawful extraction by the local officials.

The key feature of the tax quota system was the regular reassessment of the amount of tax to be paid. In case of land taxation, the volume of tax grain collected from a unit of land could

[23] The statute referred to on the Longgang slip 150 may have been such a rule, but at present there is no source material to further explore this possibility. Yamada believes that land taxation was regulated by special legislation, the "field ordinances" (*tian ling* 田令), that, in contrast to the "Statutes on fields", addressed specific local agricultural situations. He also speculates the new type of legislation was necessitated by the Qin conquest of rice agriculture regions in the Yangzi basin that differed from Guanzhong in terms of crop yields and therefore was subject to different taxation rates. See Yamada, *Shin Kan zaisei shūnyū*, 46-47. "Field ordinances", indeed, appear to have been a form of local-specific legal regulations that were issued by the central government and could be "adjusted" (*xiu* 修) by commandery governors. See *Shuihudi*, 13, slip 4, where Governor Teng 騰 of Nan Commandery says he was "adjusting" various legal norms, including "field ordinances", for the local use. However, I do not think that legal regulation of tax rates belonged to the purview of "field ordinances" insofar as the latter were addressing the work of local rather than central administration.

[24] *Liye Qin jiandu*, vol. 1, 331-332, tablet 8-1454+8-1629.

vary from year to year. Excavated textual evidence suggests that the state routinely claimed about one tenth of agricultural output, but this tenth did not constitute a fixed amount.[25] The actual amounts of grain levied per unit of land were reassessed on the annual basis and varied by a significant margin even within a small county such as Qianling. A land taxation document excavated at Liye sheds light on the actual extraction rates under the Qin system of land taxation.[26]

遷陵卅五年狠（墾）田輿五十二頃九十五畝，稅田四頃□□
戶百五十二，租六百七十七石。衛（率）之，畝一石五
戶嬰四石四斗五升，奇不衛（率）六斗（正）

啓田九頃十畝，租九十七石六斗。
都田十七頃五十一畝，租二百冊一石。
貳田廿六頃卅四畝，租三百卅九石三。
凡田七十頃冊二畝· 租凡九百一十
六百七十七石（背）

Recto:
Qianling [County] in the thirty-fifth year [of King Zheng, i.e., the First Emperor] (212 B.C.) opened up and recorded [on cadastral map] 52 *qing* 95 *mu* of agricultural fields, tax fields are 4 *qing*…
152 households, [land] tax 677 *shi*. Ratio it [to the area of fields] at 1.5 *shi* per *mu*. Each household assigned 4 *shi* 4 *dou* 5 *sheng* of tax, remainder 6 *dou*.

Verso:
Fields in the Qi[ling District], 9 *qing* 10 *mu*, tax 97 *shi* 6 *dou*.
Fields in the Town [District], 17 *qing* 51 *mu*, tax 241 *shi*.
Fields in the Er[chun District], 26 *qing* 34 *mu*, tax 339 *shi* 3 [*dou*].
Total [area of] fields, 70 *qing* 42 *mu*. Total tax 910 [*shi*].
677 *shi*.

The record on the back side of the tablet makes clear that per *mu* land tax rates applied in different districts deviated from the county's average by as much as almost 20%. Moreover, the

[25] See Xiao Can, *Yuelu shuyuan cang Qin jian "Shu" yanjiu*, 47-48.

[26] *Liye Qin jiandu*, vol. 1, 345-347, tablet 8-1519.

level of extraction was reduced toward the periphery of the county (see Table A.1).[27] While this may have been conditioned on the quality of soil or crops in a particular year (of which we know nothing), it can also be explained by transportation costs that had to be effectively covered by the taxpayers delivering revenue produce to the county granaries. Under such a scenario, the Qianling document illustrates the Qin fiscal strategy of maximizing net revenue through more intensive exploitation of resources in close proximity to the loci of state expenditure such as administrative centers where the majority of local officials and servicemen were stationed.

Table A.1: Land taxation in Qianling County

District	**Field area**	**Amount of tax**	**Tax per *mu* (*dou/mu*)**	**Tax rate**
Qiling	9 *qing* 10 *mu*	97 *shi* 6 *dou*	1.07	7.15%
Town	17 *qing* 51 *mu*	241 *shi*	1.38	9.18%
Erchun	26 *qing* 34 *mu*	339 *shi* 3 *dou*	1.29	8.59%
Total (newly opened-up land)	52 *qing* 95 *mu*	677 *shi* 9 *dou*	1.28	8.53%
Total (all land)	70 *qing* 42 *mu*	910 *shi*	1.29	8.61%

In contrast to the record on the back side of the tablet that reflects the actual distribution of the tax burden among the districts, that on the front side illustrates the process of fiscal assessment,

[27] The Town District was where the county town was located. Erchun District was located closer to the county center than the Qiling District, as will be discussed in Chapter 2.

which involved the already familiar procedure of applying productivity norms to estimate the field area necessary to produce the required amount of tax grain. The document distinguishes between the "fields recorded on cadastral maps" (*yu tian* 輿田) and "tax fields" (*shui tian* 稅田). The interpretation of both terms, which also occur in arithmetic manuals from the Qin and early Western Han periods, provoked some debate.[28]

In view of the reconstructed Qin procedure for determining the amount of land tax and fiscal use of *cheng* norms, the area of "tax fields" should have been calculated on the basis of two figures: the land tax quota for the administrative unit (in this case, the Qianling County) and the productivity norm (area of fields that produces certain amount of tax). With the tax quota of 677 *shi* (13,540 liters) at the applied rate of 1.5 *shi* (30 liters) per *mu*, the area of fields needed to produce the required volume of grain would be 451.3 *mu*, or 4 *qing* 51.3 *mu*. It may be assumed that the illegible graphs in the end of the first line of text on the front side stood for 51 *mu*.[29] If this was indeed the case, "tax fields" constituted to 8.52% of "fields recorded on cadastral maps".[30]

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[28] Some scholars argued that the terms referred to separate categories of agricultural lands, such as privately owned as opposed to state-owned or distributed to households as opposed to managed directly by the state. See Zhou Haifeng 周海峰, "Yuelu shuyuan cang Qin jian "tian lü" yanjiu" 岳麓書院藏秦簡"田律"研究 [A study of the "Statute on fields" from the Yuelu Academy collection of Qin documents], in *Jianbo* 11 (2015): 101-110; Shen Gang 沈剛, "*Liye Qin jian (yi)* suojian Qin dai gongtian jiqi guanli" 《里耶秦簡（一）》所見秦代公田及其管理 [Public fields and their management under the Qin Dynasty as reflected in the first volume of *Liye Qin jian*], in *Jianbo yanjiu 2014* (Guilin: Guangxi shifan daxue, 2014), 34-42; Wang Wenlong 王文龍, "Qin ji Han chu suanshushu suojian tianzu wenti tantao" 秦及漢初算數書所見田租問題探討 [On some problems related to land taxation as reflected in the Qin and early Han arithmetic manuals], *Xianyang shifan xueyuan xuebao* 襄陽師範學院學報 28.1 (2013): 18-20. Others suggested that the "tax fields" was a fiscal term indicating an area the produce of which was sufficient for paying the entire land tax for a (larger) total area of fields. See Peng Hao, "Tan Qin Han shushu zhong de "yu tian" ji xiangguan wenti" 談秦漢數書中的"輿田"及相關問題 [On the "fields recorded on cadastral maps" in the Qin and Han arithmetic manuals and some related questions], *Jianbo* 6 (2011): 21-28. Analysis of the Liye document supports the latter opinion.

[29] *Liye Qin jiandu*, vol. 1, 347, n. 2.

[30] Or 8.53% if we accept the total amount of tax as 677.9 *shi*, which is the sum of three districts' tax contributions (see Appendix A), rather than the 677 *shi* specified on the front side of the tablet. The reason for the difference between two numbers is unclear. It may have been the result of truncating the amount to full *shi*.

The next question to ask is, why the need for estimating the area of "tax fields"? Was this area indeed reserved for producing grain payable to the state in taxes? In this case each household would be required to reserve some 3 *mu* of its land to fulfill the quota of 4.45 *shi* (89 liters) of tax grain. However, as already observed, actual amounts of tax per *mu* of land varied across districts. To fulfill its tax quota, Qiling District would need to set aside 7.15% of its land as "taxable fields", while this ratio would be 9.18% for the Town District and 8.59% for Erchun District (see Table A.1). Moreover, it is difficult to imagine that the government would be satisfied with reduced amount of tax should the crops of the "tax fields" for some reason fall short of the quota. Instead, as the record on the back side of tablet makes clear, land tax was levied on the entire area of cultivated fields within the administrative unit.

In his recent study of the "tax fields" in the above-translated Liye document and in the arithmetic manuals from Zhangjiashan (early Western Han) and the Yuelu Academy collection (Qin), Wang Yong 王勇 suggested that these were the fields used by the local officials to assess the expected harvest yield, which would then be reported to the central government who used it as a basis for assessing tax for the respective counties.[31] While Wang's analysis offers a possible explanation of the new evidence in light of the recent reconstruction of the Qin land taxation regime, it is highly unlikely that the "tax fields" had the productivity of exactly 1.5 *shi* (ca. 30 l) of grain per *mu*, the number that is quoted as the "normal" productivity in some transmitted texts (see below). Wang also recognizes that the taxation rate varied between individual districts within the county and admits this had to do with the crop yields that were different for the three districts. If this was the case, according to Wang's logic, each district had to have its own "tax field" to

[31] Wang Yong 王勇, "Shuitian yu qu cheng: Qin dai tianzu zhengshou fangshi lice" 税田與取程：秦代田租徵收方式蠡測 [Tax fields and the assessment of norms: some thoughts on the forms of land tax collection in the Qin Empire], in *Jianbo yanjiu 2016. Qiu dong juan*, 86-93.

assess the local productivity, but then the "tax field" area would have been recorded separately for each district. This is not something we observe in the document.

Instead of assuming that the "tax fields" were an actual piece of land, I suggest this was a fiscal abstraction applied to keep check on the tax rates that varied from year to year. On receiving its annual tax quota, the county estimated the year's tax rate in terms of the ratio of the field area needed to produce the required amount of tax grain under applied productivity norm to the area under cultivation in a particular year. Considering that, in spite of every effort, the actual amount of agricultural output remained unclear until the harvest was collected, such a ratio was the local government's best shot to assess actual taxation burden. While it is unclear what rate was considered acceptable for the authorities, and if this was formally established at all, the Qianling rate of 8.52% is under 10% that traditional sources quote as land taxation rate applied in Qin.[32] Of course, the margins of acceptable could vary depending on the government's demand for grain in a particular area, as was indeed the case in Qianling County (cf. 9.18% in the Town District vs. 7.15% in Qiling District).

The productivity norm for the "tax fields" applied in the Liye document, 1.5 *shi* per *mu*, curiously coincides with agricultural yield quoted in the *Hanshu* "Treatise on Food and Currency" (*Shihuo zhi* 食貨志) with reference to the early Warring States statesman and reformer Li Kui 李悝 (455–395 BCE).[33] Was this rate universally used for land tax assessment in the Qin Empire? This seems unlikely considering that the "error in ticketing" tasks in the Qin and early Han arithmetic texts specifically address variations in productivity norms on the basis of which the area of "taxable fields" was calculated. I would rather speculate that the "average" rate of 1.5 *shi* per

[32] For this observation, see *Liye Qin jiandu*, vol. 1, 347, n. 2.

[33] *Hanshu*, 24A.1124.

mu applied to the lands newly opened-up for cultivation, the actual productivity of which still had to be established. After the first year or a few years of cultivation, the rate could be adjusted accordingly. More land tax records such as the Liye tablet 8-1519 will be needed to verify this assumption.

Finally, the estimate of tax amount per household may suggest the newly opened-up lands were distributed among households to even out their eventual tax obligations. This may well have been the original intention of the land distribution system aimed at maintaining economic equality among households. In practice, however, households faced an uneven distribution of the fiscal burden. While the land taxation record from Liye does not specify if 152 land recipient households constituted the entire registered population of Qianling County, this is rather likely in view of the available population data. Tablet 8-2004 is an account by the county Bureau of Households (*hu cao* 戶曹) on population dynamics between the 28th and 33rd years of the First Emperor (219–214 BCE). Household numbers for these six years were, respectively, 191, 166, 155, 159, 161, and 163 households.[34] In 212 BCE, 152 should have represented the majority, if not the entire registered population of the county. In the previous year, 213 BCE, 28 of these were residing in Qiling District, and in 212 BCE Erchun District had the population of 60 households.[35] This would leave Town District with the remaining 64 households. An undated household record that probably refers

[34] *Liye Qin jiandu*, vol. 1, 166-167, tablet 8-2004. The number for 218 BCE is confirmed by another document from the Qianling archive, see *Liye Qin jiandu*, vol. 2, 350, tablet 9-1706+9-1740.

[35] For the Qiling District household numbers record dated from 213 BCE, see *Liye Qin jiandu*, vol. 1, 172, tablet 8-518. The document is discussed below with regard to household taxation. For Erchun District, see *Liye Qin jiandu*, vol. 1, 381, tablet 8-1716. This document records the "aggregate number of households" (*ji hu* 積戶), which is the sum of numbers of registered households on each day of the year. The text is partly damaged, and the final digits of the number are not preserved, but it is clear that the "cumulative number" was above 21,300 and below 21,400, which, divided by 355, results in the household number of 60 households. For "cumulative" household numbers, see Wang Wei and Sun Zhaohua, "Jihu" yu "jianhu," 62-67.

to the Town District conveys the figure of 61 households, which is close to the estimated household number in 212 BCE.[36]

Provided that the newly opened-up land was evenly distributed among households, which cannot be taken for granted since householders had different social ranks and were formally entitled to different sizes of landholding, each household in Qiling District would have received 32.5 *mu* (ca. 1.5 ha) of land, in Erchun District, 43.9 *mu* (ca. 2 ha), and in the Town District, 27.35 *mu* (1.26 ha), resulting in per household land tax of 3.48, 5.66, and 3.77 *shi* of grain, respectively. Again, the lowest taxation levels are observed in the relatively remote Qiling District. These calculations lead to a conclusion that the per household taxation estimate on the front side of tablet 8-1519 is a notional number that was probably deduced in order to evaluate the fiscal burden. In practice, as has already been noticed, decisions on the spatial distribution of extraction could have been affected by logistical considerations.

The principle of regular revisions of taxation norms applied not only to grain but also to other taxable agricultural crops, such as hemp (*xi* 枲). The arithmetic manual from the Yuelu Academy collection contains many tasks that deal with the collection of land tax from the hemp fields based on productivity estimates (*cheng*) varying between as little as one bundle (*shu* 束) per 8 square paces (*bu*) to as much as one bundle per 3.5 square paces.[37]

[36] *Liye Qin jiandu*, vol. 1, 297, tablet 8-1236+8-1791. For the conclusion that the record on this tablet refers to the Town District, see Yan Changgui and Guo Tao, "Liye Qin jian suojian Qin Qianling xian xiangli kao," 145-154.

[37] Xiao Can, *Yuelu shuyuan cang Qin jian "Shu" yanjiu*, 34-41.

Appendix B: Agricultural resources in the Qin South

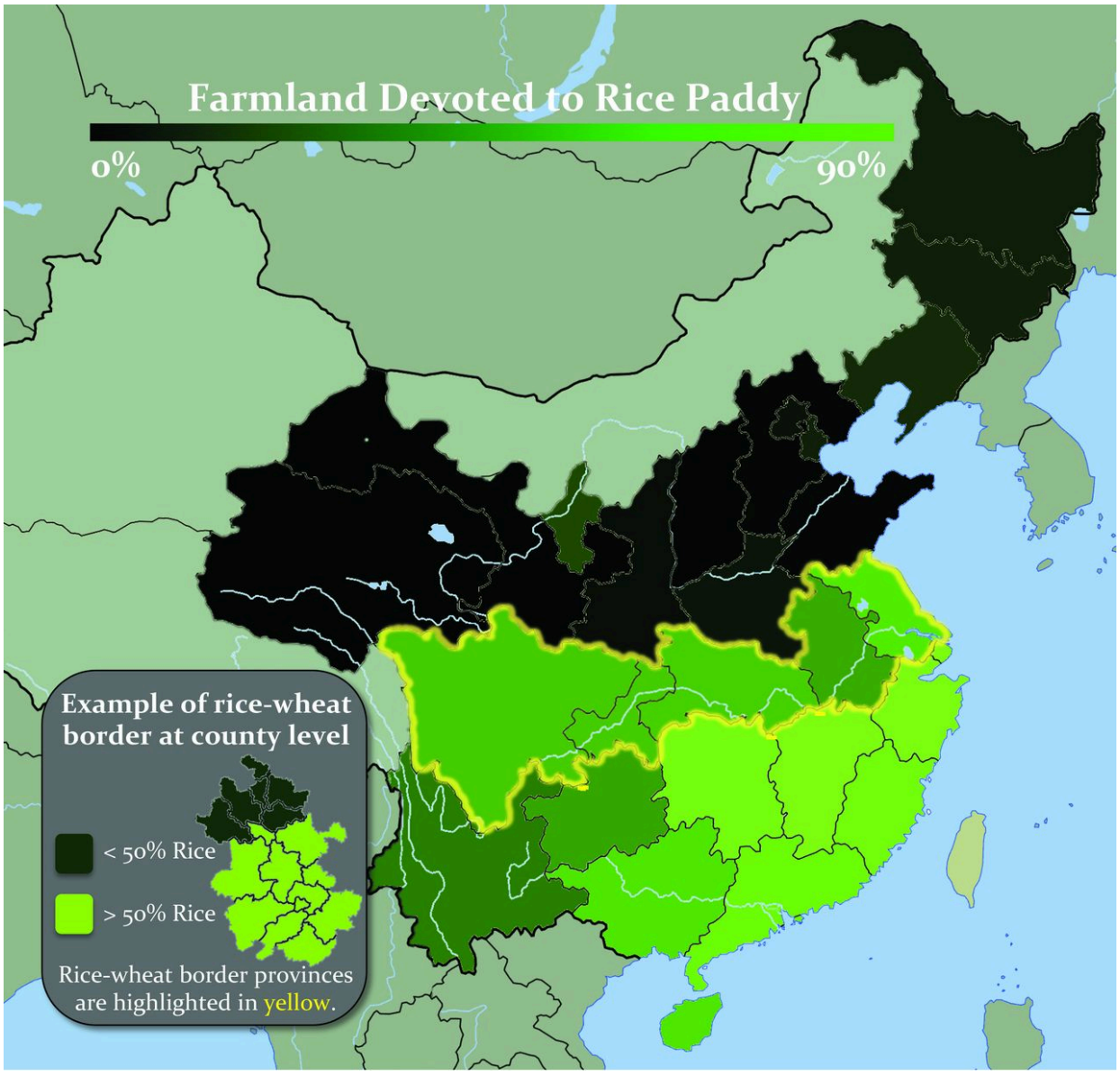
While the middle and lower Yangzi Basin in general and Hunan Province in particular are nowadays primarily associated with paddy rice cultivation (see Map B.1), the ancient inhabitants of the region practiced more diverse subsistence that combined variety of crops. On the Middle Yangzi and in Sichuan "combined rice and foxtail millet formed a perfect packet for agricultural expansion, thanks to their versatility and capacity for intensification and potential to reduce risk".[1] Parts of the northern agricultural repertoire, in particular, millet cultivation, were imported from the Yellow River basin as early as the late fourth and third millennium BCE. On the Middle Yangzi, combination of rice and millet agriculture is archaeologically attested at the Daxi Culture (ca. 4400–3300 BCE) site of Chengtoushan (see Map 3.2[2]). Paleobotanic evidence suggests that the dry farming here expanded over time as populations advanced upland from the alluvial plain.[3] On the Chengdu Plain in Sichuan, contacts with the Majiayao 馬家窯 Culture (ca. 3300–2600 BCE) in eastern Gansu may have been instrumental in the introduction of millet farming.[4]

[1] Jade d'Alpoim Guedes, "Millets, Rice, Social Complexity, and the Spread of Agriculture to the Chengdu Plain and Southwest China," *Rice* 4 (2011): 104-113.

[2] This map is borrowed from T. Talhelm, X. Zhang, S. Oishi, C. Shimin, D. Duan, X. Lan, and S. Kitayama, "Large-Scale Psychological Differences within China Explained by Rice versus Wheat Agriculture," *Science* 344 (2014): 603-608.

[3] Hiroo Nasu, "Land-Use Change for Rice and Foxtail Millet Cultivation in the Chengtoushan Site, Central China, Reconstructed from Weed Seed Assemblages," *Archaeological and Anthropological Sciences* 4.1 (2012): 1-14.

[4] D'Alpoim Guedes, "Millets, Rice, Social Complexity," 107.



Map B.1: Dryland and paddy rice cultivation in modern China

Scholars argued that the combination of paddy rice and dryland crops such as millet was a subsistence strategy that especially fit the landscape with variable and vertical topography, such as the one on the fringes of the Chengdu Plain in Sichuan and in Western Hunan. With its short growing season and tolerance for aridity, millet was a crop of choice for populations expanding into foothills and upland environments. Crop diversification also provided society with a fallback

in the years of poor yield.[5] In the more mountainous regions on the Middle Yangzi, such as the Three Gorges area, broomcorn and foxtail millet remained the dominant crops until and into the early imperial period, while some rice was probably imported from elsewhere.[6]

The coexistence of paddy rice and dryland crop cultivation in the Yangzi basin during the Bronze Age through the early imperial era is amply attested by the finds of grains at the burial sites, which are summarizes in the following table. By the number of reported finds, foxtail millet is second only to rice (14 vs. 19 finds), and broomcorn millet, wheat, and barley are also attested. It should also be noticed that millet is likely to be underrepresented in archaeological record due to the much smaller size of grains, compared to rice, which can rarely be seen by the naked eye.[7]

Table B.1: Archaeological evidence for agricultural crops in the Middle Yangzi (ca. 1500 BCE – ca. 200 CE)

#	Crop	Place of discovery	Date	Publication date
1	Broomcorn millet 黍, hemp 麻	Hubei, Xingtai 邢台, Caoyanzhuang 曹演莊	Shang	1982

[5] D'Alpoim Guedes, "Millets, Rice, Social Complexity," 104-113; d'Alpoim Guedes, Ming Jiang, Kunyu He, Xiaohong Wu, and Zhanghua Jiang, "Site of Baodun Yields Earliest Evidence for the Spread of Rice and Foxtail Millet Agriculture to South-West China," *Antiquity* 87 (2013): 758-771.

[6] Flad and Chen, *Ancient Central China*, 193-195.

[7] D'Alpoim Guedes, "Millets, Rice, Social Complexity," 109. The following table is based on Liu Xinglin 劉興林, *Xian Qin Liang Han nongye yu xiangcun juluo de kaoguxue yanjiu* 先秦兩漢農業與鄉村聚落的考古學研究 [*An archaeological study of agriculture and rural settlement during the pre-Qin and Han periods*] (Beijing: Wenwu, 2017), 187-194, table 5.3. While Liu's table summarizes the data for entire China, I selected the entries for the Middle Yangzi region (modern provinces of Sichuan, Hubei, Hunan, and Jiangxi).

2	Foxtail millet 粟, rice 稻, broomcorn millet	Jiangxi, Xin'gan 新干, Niucheng 牛城遺址	Shang to early Western Zhou	2015
3	Foxtail millet, rice	Sichuan, Chengdu, Jinsha 金沙	Late Shang, early Zhou	2011
4	Foxtail millet, rice	Sichuan, Shefang 什邡, guiyuanqiao 桂圓橋	Western Zhou	2015
5	Round-grained nonglutinous rice (Japonica) 粳稻	Hubei, Qichun 圻春, Maojiaju 毛家咀	Western Zhou	1962
6	Husked rice 大米	Hubei, Hanchuan nanhe 漢川南河	Western Zhou	1984
7	Foxtail millet, rice, broomcorn millet, barley 大麥	Sichuan, Langzhong 閬中, Zhengjiaba 鄭家壩	Shang to mid-Spring and Autumn	2013
8	Rice	Hunan, Dengxian 澄縣, Shuangyan 雙堰	Spring and Autumn	1992
9	Rice, hemp	Jiangxi, Jing'an 靖安, Lizhouao 李洲坳	Spring and Autumn	2008
10	Japonica rice	Jiangxi, Xin'gan, Jiebu 界埠	Warring States	1981

11	Foxtail (?) millet 小米	Sichuan, Xingjing 榮經, Zengjiagou 曾家溝	Warring States	1984
12	Foxtail millet	Hubei, Jingmen 荊門, Zuozhong 左冢 Tomb 1	Late Warring States	2006
13	Grain 米 (?)	Hubei, Jiangling 江陵, Jinancheng Chenjiatai 紀南城陳家台	Warring States	1982
14	Rice	Hubei, Yunmeng 雲夢, Shuihudi 睡虎地	Qin	1986
15	Foxtail millet	Sichuan, Wenchuan 汶川	Late Warring States to mid-Western Han	1973
16	Rice	Sichuan, Xichang 西昌	Late Warring States to early Western Han	1976
17	Foxtail millet	Sichuan, Wenchuan, Luobuzhai 蘿卜砦	Western Han	1983
18	Foxtail millet	Sichuan, Chengdu	Han	1959
19	Beans/peas 豆	Hunan, Mawangdui 馬王堆 Tomb #3	Western Han	1974
20	Foxtail millet, wheat 小麥, barley, broomcorn	Hunan, Mawangdui Tomb #1	Western Han	1974

	millet, soybean 大豆, red (azuki) bean 赤豆, hemp			
21	Rice	Hunan, Yujiataizi 余家台子	Eastern Han	1982
22	Foxtail millet, rice	Hubei, Jiangling, Fenghuangshan 鳳凰山	Western Han	1974
23	Rice ear 稻穗, black soya bean 黑豆	Hubei, Jiangling, Fenghuangshan	Western Han	1976
24	Foxtail millet, soybean, black soya bean	Hubei, Jiangling, Fenghuangshan Tomb #168	Western Han	1993
25	Long-grained rice 籼稻	Hubei, Yunmeng, Dawentou 大汶頭	Western Han	1981
26	Foxtail millet, rice	Hubei, Yunmeng	Western Han	1986
27	Rice	Hubei, Jingzhou 荊州, Xiejiaqiao 謝家橋	Western Han	2007
28	Foxtail millet	Hubei, Guanghua 光化	Western Han	1976
29	Foxtail millet, rice	Hubei, Jingzhou, Xiaojia zaochang 蕭家草場	Western Han	1999
30	Japonica rice	Jiangxi, Nanchang 南昌	Eastern Han	1981

Although some northern crops may have been imported to the Yangzi Basin, the number of finds suggests the enduring presence of dryland crops throughout the region and the continuation of agricultural practices already visible on the late Neolithic settlements well into the historical period.[8] Originally developed as a subsistence strategy, the long-standing availability of diverse farming practices gained new importance as the Qin administrators, colonists, and forced laborers appeared in the area.

The late Warring States Qin lawgivers and administrators were fully aware of the agricultural diversity in their rapidly expanding state. Excavated legal statutes and arithmetic manuals, most likely designed to be used by the local officials, refer to a variety of crops that generally matches the archaeological evidence. The "Statute on granaries" (*cang lü* 倉律) from Shuihudi lists cereals and legumes sowed by the Qin farmers and collected by authorities as agricultural tax. An article that establishes norms for the use of seed grain in sowing mentions the following crops: rice 稻, hemp 麻, wheat 麥, millet 黍, red beans 荅, and peas 菽. The list also includes *he* 禾, a term that elsewhere in the Shuihudi texts figures as a general reference to the grain ear, when the type of grain is not specified.[9] A.F.P. Hulsewé translates *he* in this article as "wheat" while translating *mai* 麥 as "barley".[10] Yet wheat is known to have been cultivated much

[8] For the observation that dryland crops were grown locally, even though some of the finds may be due to imports, see Liu Xinglin, *Xian Qin Liang Han nongye*, 194-195.

[9] *Shuihudi*, 29, slips 38-39; Hulsewé, *Remnants*, 41. For the use of the term *he* 禾 as a reference for grain in the ear or, more generally, any grain supplies, see, for example, *Shuihudi*, 25-27, slips 21-27; Hulsewé, *Remnants*, 34-38; *Ernian lüling yu Zouyanshu*, 176-177, slip 216; Barbieri-Low and Yates, *Law, State, and Society*, vol. 2, 652-653.

[10] Hulsewé, *Remnants*, 41.

more broadly that barley, the latter being mainly limited to the north-western regions.[11] Numerous mentions of *mai* in the transmitted sources are probably referring to wheat in most of cases. One possible rationale for Hulsewé's translation may be the assumption that the sowing norms for wheat and barley are similar and in the order of 1 *dou* per *mu* (approx. 2 liters per 461 sq.m, or 43.4 liters per hectare). In reality, the seeding rates for both crops vary enormously depending on the quality of soil and the seeding date.[12]

Another list of crops to be found in the Shuihudi legal texts offers the same problem of interpretation. The article establishes the weight to volume correlation for various crops as well as correlation between the volumes of grains at the various processing stages, e.g. before and after husking or polishing.[13] The crops addressed in the text are rice, wheat, hemp, red beans, peas, but the text begins with the discussion of what was probably the most important crop, the *su* 粟. Nowadays the word is used for foxtail millet, but in the ancient texts it often refers generically to grain, especially to the threshed but further untreated grain.[14] Here, however, the use of the term along with the names for specific crops suggests it is also denoting a particular crop, most likely millet, which is otherwise unmentioned in this legal article.

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[11] Liu Xinglin, *Xian Qin Liang Han nongye*, 196-198. Wheat cultivation was already practiced in the Wei River basin in late Neolithic, and its importance continued to increase during the Bronze Age. For a recent discussion, see Lander, "Environmental Change and the Rise of the Qin Empire," 139-143.

[12] This applies under the modern conditions, as it probably did in the ancient times, see, for example, https://cropwatch.unl.edu/determining-seeding-rate-your-winter-wheat, accessed December 18, 2018.

[13] *Shuihudi*, 29-30, slips 41-43; Hulsewé, *Remnants*, 42-43.

[14] Hulsewé, *Remnants*, 35, n. 1. In the transmitted texts from the Warring States and early imperial eras, *su* is usually used for grain in general, cf. the opening chapter of *Mengzi*: "If the year be bad on the inside of the river, I remove as many of the people as I can to the east of the river, and convey grain to the country in the inside" 河內凶，則移其民於河東，移其粟於河內, see Jiao Xun 焦循, ed., *Mengzi zhengyi* 孟子正義 [*The true meaning of the Mengzi*] (Beijing: Zhonghua, 1987), 2.15, transl. James Legge.

Turning to the arithmetic manuals that contain multiple tasks concerned with volume ratios between various types of grain, we observe the same ambiguity.[15] Some tasks in the Qin manual from the Yuelu Academy collection, for example, are referring to various stages in grain processing when speaking of *dao su* 稻粟, "unhusked rice", or *dao mi* 稻米, "husked rice", or *shu su* 黍粟, "unhusked broomcorn millet".[16] Similarly, when a task is to establish volume relation between *su* 粟 and *hui* 毀, "refined grain", the former is most likely referring to the processing stage.[17] But then another task requires to establish volume ratio between *su* and peas 菽, beans 荅, and wheat 麥. Moreover, yet another task in the same block asks about the ratio between "unhusked rice" 稻粟 and the same three crops.[18] Clearly, in the former case, *su* is not simply any unhusked grain but a specific one. As in the case with the legal statutes, it is probably the foxtail millet, insofar as other crops are usually specified by their name, as in the case of rice.[19]

[15] This group of arithmetic tasks was probably designed to teach granary officials to efficiently manage their storage space. For a discussion, see Xiao Can, *Yuelu shuyuan cang Qin jian "Shu" yanjiu*, 141-143.

[16] Xiao Can, *Yuelu shuyuan cang Qin jian "Shu" yanjiu*, 72-73, slips 780, 981, 760.

[17] Xiao Can, *Yuelu shuyuan cang Qin jian "Shu" yanjiu*, 69, slip 974.

[18] Xiao Can, *Yuelu shuyuan cang Qin jian "Shu" yanjiu*, 72, slip 776.

[19] Christopher Cullen arrives at similar conclusion in his study of the arithmetic manual from the early Western Han tomb no. 247 at Zhangjiashan: "粟 *su* refers to grain that is in its unprocessed state, as removed from the ear by threshing and still bearing its husk (or hull). We may note, however, that in Western Han China it is very probable that the grain referred to by an isolated instance of this term was foxtail millet (*setaria italica*)", see Cullen, *The Suàn shù shū*, 30.

Appendix C: Ration-issuing records in the Qianling county archive

All reign years in Appendix C refer to the reign of King Zheng, i.e., the First Emperor of Qin, where 26 = 221 BCE, 27 = 220 BCE, and so on. Recepients are identified according to generic categories, so "servicemen" include such frontier soldiers serving in shifts of duty (*gengshu* 更戍), frontier soldiers deployed in garrisons (*tunshu* 屯戍), frontier soldiers (*shuzu* 戍卒), and "soldiers mounting the city walls" (*chengchengzu* 承城卒). It is not always clear if the difference between these groups were that of duration and nature of service or only of function assigned to specific group of soldiers at particular time. Similarly, the category "hard-labor convicts" includes the holders of this legal status of both genders and various age groups.

Reign year	Grain	Recipient	Issuer	Storage	Slip number
26	Rice and millet 稻粟	Debtor laborers 居資	Hospital 廝舍		9-502+9-1526
26	Rice and millet 稻粟	Debtor laborers 居貸	Hospital 廝舍		9-1903+9-2068
26	Rice 稻	Servicemen, debtor laborers 承城卒、居資	Granaries 倉		9-1920+9-1127

26	Rice and millet 稻粟	Debtor laborers 居貸	Hospital 廝舍		9-1937+9-1301+9-1935
26	Wheat 麥	Destitute 貧毋種者	Erchun Distr. 貳春鄉		9-533+9-886+9-1927
26	Millets 粢粟	Servicemen 承城卒	Granaries 倉		8-1452
26	Millets 粢粟	Debtor laborers 居貸	Hospital 廝舍		9-2303+9-2292
27	Millet 粟	Bondservant convicts 小隸臣	Granaries 倉		8-1551
27	Millet 粟	Bondservant convicts 大隸妾	Granaries 倉		9-134+9-262
29	Millet 粟		Granaries 倉	Bing 丙廩	8-1690
30		Hard-labor convicts 舂、小城旦	Controller or Works 司空		8-216+8-351+8-525
30	Millet 粟		Controller or Works 司空	Yi 乙廩	8-1647
31	Rice 稻	Bondservant convicts	Granaries 倉		8-217

		隸臣嬰兒			
31	Rice 稻		Granaries 倉		8-7
31	Rice 稻		Granaries 倉		8-45+8-270
31	Millet 粟	Servicemen 屯	Granaries 倉	Jing 徑廩	8-56
31	Rice 稻	Bondservant convicts 隸臣…	Granaries 倉		8-211
31	Millet 粟	Hard-labor convicts 舂、小城旦	Controller or Works 司空	Jing 徑廩	8-212+8-426+8-1634
31	Rice 稻		Granaries 倉		8-275
31	Millet 粟		Controller or Works 司空	Jing 徑廩	8-474+8-2075
31			Granaries 倉		8-606
31	Millet 粟	Bondservant convicts 大隸妾	Granaries 倉		8-760
31	Millet 粟	Bondservant convicts 大隸妾	Granaries 倉	Jing 徑廩	8-762
31	Millet 粟	Bondservant convicts 大隸妾	Granaries 倉		8-763

31	Millet 粟	Debtor laborers 貲貸士伍	Office of fields 田官	Jing 徑廩	8-764
31	Millet 粟	Bondservant convicts 大隸妾	Granaries 倉	Jing 徑廩	8-766
31		Penal military service 罰戍	Office of fields 田官		8-781+8-1102
31	Millet 粟		Granaries 倉	Jing 徑廩	8-800
31	Millet 粟		Erchun Distr. 貳春鄉		8-816
31	Millet 粟	Bondservant convicts 隸妾	Granaries 倉	Bing 丙廩	8-821+8-1584
31	Millet 粟	Bondservant convicts 大隸妾	Qiling Distr. 啟陵鄉		8-925+8-2195
31	Millet 粟		Granaries 倉	Jing 徑廩	8-1081
31		Bondservant convicts 未（使）小隸臣	Granaries 倉		8-1153+8-1342
31	Millet 粟	An adult woman 冗作大女	Granaries 倉	Jing 徑廩	8-1239+1334

31	Millet 粟		Qiling Distr. 啟陵鄉		8-1241
31	Millet 粟			Jing 徑廩	8-1257
31	Millet 粟	Hard-labor convicts 舂、白粲	Erchun Distr. 貳春鄉		8-1335
31	Rice 稻		Granaries 倉		8-1336
31	Rice 稻	Officials 遷陵丞	Granaries 倉		8-1345+8-2245
31	Millet 粟	Bondservant convicts 隸妾嬰兒	Granaries 倉		8-1540
31	Millet 粟	Servicemen 屯戍	Granaries 倉	Bing 丙廩	8-1545
31	Rice 稻	Officials 佐	Qiling Distr. 啟陵鄉		8-1550
31	Millet 粟	Bondservant convicts 隸妾	Erchun Distr. 貳春鄉		8-1557
31	Millet 粟	Servicemen 屯戍	Office of fields 田官	Jing 徑廩	8-1574+8-1787

31	Millet 粟	Hard-labor convicts 舂	Erchun Distr. 貳舂鄉		8-1576
31	Millet 粟			Bing 丙廩	8-1590
31	Millet 粟		Erchun Distr. 貳舂鄉		8-1595
31	Millet 粟		Granaries 倉	Jing 徑廩	8-1739
31	Rice 稻		Granaries 倉		8-1794
31	Millet 粟	Penal military service 罰戍	Office of fields 田官	Jing 徑廩	8-2246
31	Millet 粟	Bondservant convicts 隸妾	Granaries 倉	Jing 徑廩	8-2249
31	Millet 粟	Servicemen 屯戍	Office of fields 田官		9-762
31	Millet 粟	Bondservant convicts 大隸妾	Granaries 倉	Jing 徑廩	9-13
31	Rice 稻	Officials 少內佐	Granaries 倉		9-16
31	Millet 粟		Office of fields 田官	Jing 徑廩	9-41

31	Rice 稻	Bondservant convicts 隸妾	Granaries 倉		8-1905+9-309+9-976
31	Millet 粟	Bondservant convicts 小隸臣	Granaries 倉	Jing 徑廩	9-440+9-595
31	Millet 粟	Servicemen 屯戍	Erchun Distr. 貳春鄉		9-761
31	Millet 粟	Servicemen 屯戍	Office of fields 田官	Jing 徑廩	9-762
31	Millet 粟	Penal military service 罰戍	Office of fields 田官	Jing 徑廩	9-763
31	Millet 粟		Office of fields 田官	Jing 徑廩	9-908
31	Millet 粟	Debtor laborers 居資	Office of fields 田官	Jing 徑廩	8-1014+9-934
31	Millet 粟	Person of service age 使？	Granaries 倉	Jing 徑廩	9-1033+9-726
31	Millet 粟	Debtor laborers 居資	Office of fields 田官	Jing 徑廩	9-1117
31	Millet 粟		Granaries 倉	Jing 徑廩	9-1493

31	Millet 粟	Hard-labor convicts 白粲	Erchun Distr. 貳春鄉		9-1466
31	Rice 稻				9-1572
31	Millet 粟		Erchun Distr. 貳春鄉		9-2245
31	Millet 粟	Servicemen 屯戍	Granaries 倉		9-2334
31	Rice 稻	Bondservant convicts 大隸妾	Qiling Distr. 啟陵鄉		9-2337
31	Rice 稻				9-1775
31	Millet 粟	Debtor laborers 居責（債）	Office of fields 田官	Jing 徑廥	9-901+9-902+9-960+9-1575
32	Millet 粟				8-1088
32					8-1793
32	Millet 粟				8-2194
32	Millet 粟	Bondservant convicts 隸臣	Erchun Distr. 貳春鄉		8-2247
32	Millet 粟				9-2028
32	Millet 粟		Qiling Distr. 啟陵鄉		9-2260

33	Millet 粟	Penal military service 罰戍	Office of crossbowmen 發弩		8-761
33	Millet 粟				8-956
33			Controller or Works 司空		8-1135
33	Millet 粟	Servicemen? 更戍	Granaries 倉		8-1660+8-1827
34	Millet 粟				8-955
34	Millet 粟		Controller or Works 司空		8-1635
34	Millet 粟	Officials 沅陵獄佐	Granaries 倉		9-528+9-1129
34	Millet 粟		Granaries 倉		9-1173
34	Millet 粟				9-1552
34	Millet 粟		Granaries 倉		9-1553
34	Millet 粟	Officials 發弩？	Granaries 倉		9-2139
34	Millet 粟		Qiling Distr. 啟陵鄉		9-2274
35	Millet 粟				6-12

35	Millet 粟				8-596
35	Millet 粟		Granaries 倉		8-836+8-1779
35			Granaries 倉		8-839+8-901+8-926
35	Millet 粟				8-909
35	Millet 粟				8-924
35	Millet 粟				8-941
35	Millet 粟				8-1159
35	Millet 粟		Granaries 倉		8-1167+8-1392
35	Millet 粟		Granaries 倉		8-1268
35	Millet 粟				8-1748
35	Millet 粟				8-1762
36	Millet 粟				8-1173+8-1420
30+	Millet 粟				8-2235
30+	Millet 粟				9-2281
		Servicemen 屯戍	Granaries 倉		8-81
		Hard-labor convicts 舂、小城旦			8-337
		Bondservant convicts	Granaries 倉		8-448+8-1360

		使小隸臣			
	Millet 粟				8-511
		Servicemen 更戍			8-850
		Penal military service 適戍			8-899
		Servicemen? 更戍	Granaries? 倉		8-902
			Granaries? 倉		8-915
	Millet 粟			? 廩	8-960
		Servicemen 更戍			8-980
		Servicemen 更戍			8-1000
		Servicemen 更戍			8-1024
		Penal military service 適戍	Qiling Distr. 啟陵鄉		8-1029
		Officials 令史	Granaries 倉		8-1031
			Granaries 倉		8-1037
		Officials 令史			8-1046
			Granaries 倉		8-1059
		Officials 庫佐	Granaries 倉		8-1063

		Officials 令史	Granaries 倉		8-1066
		Officials serving as soldiers 吏以卒戍士伍	Granaries? 倉		8-1094
		Officials 發弩	Qiling Distr. 啟陵鄉		8-1101
		Servicemen 更戍			8-1109
					8-1115
			Granaries 倉		8-1134
		Bondservant convicts 大隸妾	Granaries 倉		8-1177
	Millet 粟				8-1189
	Millet 粟				8-1205
		Officials 鄉（嗇）夫			8-1238
					8-1276
	Millet 粟			Jing 徑廥	8-1321+8-1324+8-1328
			Office of fields 田官		8-1406

		Servicemen 更戍			8-1505
					8-1507
		Bondservant convicts 使小隸臣	Granaries 倉		8-1580
		Servicemen 屯戍	Qiling Distr. 啟陵鄉？		8-1710
					8-1809
		Bondservant convicts 大隸妾	Qiling Distr. 啟陵鄉		8-1839
		Hard-labor convicts 城旦			8-1894
		Bondservant convicts 大隸妾	Qiling Distr. 啟陵鄉		8-2195
		Commoner 士伍			8-2233
		Servicemen 屯戍			9-174
		Officials 啟陵鄉嗇夫	Granaries 倉		9-202+9-3238
		Servicemen 更戍	Granaries 倉		9-268

		Servicemen 屯戍	Office of fields 田官		9-552
	Millet 粟	Convicts working off debts 城旦、隸臣居資	District? 鄉	Central storage 都倉	9-1120
		Bondservant convicts 大隸臣	Granaries 倉		9-1122
		Servicemen 戍卒			9-1197
	Millet 粟				9-1489
		Bondservant convicts 隸?			9-1505
		Bondservant convicts 隸妾嬰兒			9-1574
	Rice 稻	A male minor 南里小男子			9-1622
		Officials 佐			9-1906
		Bondservant convicts 隸妾	Granaries 倉		9-1913
		Servicemen 更戍			9-1980

		Bondservant convicts 隸?			9-2108
	Millet 粟				9-2982

Appendix D: Convict labor in Qianling County

#	Tablet no.	Date BCE (y-m-d)	Employing agency	Notes
1	8-1428	220	Bureau of the Controller of Works 司空曹	Report on the completion of RCL for the 10th month (November-December) 220
2	8-285	219	Offices of Livestock 畜官, Fields 田官, and Erchun District	RCL title only
3	8-1280	219-10-27	Erchun District	Report on the works conducted in course of 39 man-days
4	10-1124	219-05-29		11 male hard-labor convicts, unclear number of female convicts and debtors
5	8-16	219–218	Office of Fields	Report on the submission of annual RCL to the county court
6	8-686+973	218-09-11	Armory 庫	Receipt of 11 convicts from the offices of

				Granaries and Controller of Works
7	8-1146	218-10-14	Erchun District	At least 5 laborers
8	8-1515	218-11-16	Erchun District	Report to the office of Controller of Works on completion of work by 2 convict laborers
9	9-787+1327	218-11-28	Erchun District	Receipt of at least 1 convict from the office of Controller of Works
10	8-801	218-12-06	Qiling District	Receipt of 2 convicts from the office of Controller of Works, report on tasks
11	8-199+688	217-02-08	Office of Livestock	Receipt of at least 4 convicts from the offices of Granaries and Controller of Works
12	8-1143+1631	217-09/10	Erchun District	Report on the works conducted in course of 292 man-days
13	8-1279	217-09-06		Receipt of at least 9 light- and hard-labor convicts

14	9-18	217-01-11	Erchun District	Receipt of 7 convicts from the office of Controller of Works, report on tasks
15	8-1370+9-516+9-564	217-01-07	Erchun District	Receipt of 7 convicts from the office of Controller of Works, report on tasks
16	9-1078	217-08-27	Controller of Works	Report on the work of at least 4 convicts
17	9-1210+9-2286	217-10-10	Erchun District	Receipt of at 9 convicts from the office of Controller of Works
18	8-196+1521	216-06-04	Town District	Receipt of 3 convicts from the offices of Granaries and Controller of Works
19	8-284	216-01	Controller of Works	A label for the collected registers of debtor laborers submitted to the county court
20	8-736	216-05-12	Office of Granaries	Report on the work of 26 convicts
21	8-1278+1757	216-05-21	Qiling District	Receipt of 4 convicts from the offices of Granaries

				and Controller of Works, report on tasks
22	8-1559	216-06-28	Office of Granaries	Cover letter for thirty RCL submitted to the county court for the 5th month of 31st year of the First Emperor (216 BCE)
23	8-1759+9-819	216-05-13	Qiling District	Receipt of at least 5 convicts from the offices of Granaries and Controller of Works
24	8-2011	216-06-09	Town District	Receipt of 3 convicts from the offices of Granaries and Controller of Works, report on tasks
25	8-2034	216-11-16	Lesser Treasury 少內	Receipt of at least 6 convicts from the office of Controller of Works, report on tasks
26	8-2111+2136	216-08-12	Controller of Works	Report on the work of at least 4 convicts
27	8-2134	216-06		Report on the work of at least 3 convicts

28	8-2151+2169	216-05	Controller of Works	Report on the work of at least 25 convicts
29	9-38	216-05-25	Qiling District	Receipt of 3 female convicts from the office of Granaries, report on tasks
30	9-2341	216-05-24	Qiling District	Receipt of 3 female convicts from the office of Granaries, report on tasks
31	10-122	216-05-27	Qiling District	Receipt of 3 female convicts from the office of Granaries
32	10-591	216-07/08		Report on the work of convicts (fragment)
33	11-249	216-10-08	Controller of Works, Office of Livestock	Report on the work of at least 22 convicts
34	9-2289	216-12-19	Controller of Works, Offices of Livestock, Fields, Lesser Treasury, Commandant 尉, Granaries, Armory, and Erchun, Qiling, and Town Districts	Report on the work of 125 hard-labor convicts

35	8-1069+1434+1520	215-07-12	Armory	Receipt of 15 convicts from the offices of Granaries and Controller of Works, report on tasks
36	10-412	215-08-15	Office of Fields	Receipt of at least 2 convicts from the offices of Granaries and Controller of Works
37	12-1499	215-11-16		RCL title only
38	8-697	214-04-13	Controller of Works	Report on the work of at least 3 convicts
39	8-1207+1255+1323	214-02-26	Erchun District	Receipt of 1 convict laborer from the office of Controller of Works
40	10-1139	214-01-18	Office of Granaries	Receipt of at least 17 hard-labor convicts from the office of Controller of Works
41	10-688	213-01-16	Controller of Works	Controller of Works reprimanded for not having submitted RCL
42	10-1170	213-01	Offices of Granaries, Controller of Works,	Monthly report on the works conducted in course

			Fields, Iron 鐵官, Livestock, and Qiling and Erchun Districts	of 4,376 man-days (145 laborers?)
43	8-962+1087	212-08-18	Erchun District	Receipt of one female convict from the office of Granaries
44	8-991	212-08/09		Receipt of convicts from the office of Granaries (fragment)
45	8-1425	212-07/08	Town District	Town District authorities reprimanded for not having submitted RCL for the 6th month of 35th year of First Emperor's reign (212 BCE)